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PART THE FIRST.

By JOHN PEARSON, Surgeon
To the Lock Hospital, and to the
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—Rationalem quidem puto *Chirurgiam* esse debere, instrui vero ab evidentibus causis; obscuris omnibus, non à cogitatione artificis, sed ab ipsa arte rejectis.

Aur. Corn. Celsus in Praefat.

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THE PREFACE.

SURGERY hath commonly been defined the Art of curing diſeaſes by external remedies, or manual operation; and hence many people have imagined, that when a man has learned the art of dreſſing Sores, of applying bandages, and performing operations with a little dexterity, that he muſt neceſſarily be an accompliſhed Surgeon. If a concluſion ſo groſs and fallacious had been confined among the vulgar and illiterate, the progreſs of Scientifick Surgery would have ſuffered little interruption; but if young minds are directed to theſe objects, as the only important matters upon which their faculties are to be exerciſed; if the groſs informations of ſenſe conſtitute the ſum of their knowledge, little more can be expected from ſuch a mode of ſtudy, than ſervile imitation, or daring Empiriciſm. Indeed ſome people have affected to op-

poſe Surgery as an ART, to Medicine as a SCIENCE; and if their pretenſions were juſtly founded, the former would certainly be degraded to a mere Mechanical occupation. But it is not very eaſy to comprehend the grounds of ſuch a diſtinction. The internal and external parts of the body are governed by the ſame general laws during a ſtate of health; and if an internal part be attacked with Inflammation, the appearances and effects will bear a great ſimilarity to the ſame diſeaſe ſituated externally; nor are the indications of cure, in general, materially different. If by Science therefore be meant, "a know-"ledge of the laws of nature," he who knows what is known of the order and method of nature in the production, progreſs, and termination of Surgical diſeaſes, merits as juſtly the title of a Scientifical practitioner, as the well-educated Phyſician. The practical parts of Phyſick and Surgery are very frequently diſunited, but their Theory and principles are indiviſible, for they truly conſtitute one and the ſame Science. But although the Science of Phyſick and Surgery cannot properly be

ſepa-

ſeparated, yet in the application of rules and principles to the knowledge and cure of Chirurgical diſeaſes, an extenſive acqaintance with the Theory of Medicine will by no means be ſufficient for practical purpoſes : Lax and general notions floating in the underſtanding will be of little advantage, until they are reduced to ſomething limited and ſpecifick ; and except knowledge be in the detail, the application of it in particular inſtances will be attended with almoſt inſurmountable difficulties. He therefore who deſires to practiſe Surgery with probity and ſucceſs, muſt ſtudy it both as a Science and as an Art ; for a man deſtitute of principles, is little better than a Surgical Automaton ; while the man of mere erudition, can only be conſidered as a learned Spectator.

It is not a little extraordinary, that in thoſe practical Sciences, where the principles of action chiefly conſiſt of probable truths, men ſhould ſo often fancy themſelves qualified to judge and to act without any previous ſtudy : And yet if a young man performs but a mere routine in Lecture-rooms and Hoſpitals, he will probably

bly make no doubt of his profeſſional qualifications. He knows indeed that ſtudy and diligence would be neceſſary to enable him to exerciſe any of the liberal arts with reputation and ſucceſs; but it would ſeem, as if Surgery were a mere intuitive buſineſs, that might be acquired without the fatigue of thinking. The progreſs of Scientifick Surgery is not to be compared with the improvements that have been made in the operative part. A ſucceſsful cultivation of Anatomy hath drawn aſide the veil from nature in ſo many inſtances, that the performance of almoſt any operation in Surgery is become ſo ſafe and eaſy, as to give ſome reaſon to fear leſt a fondneſs for operating degenerate into exceſs. This however is certain, that he who reduces the province of a Surgeon to the performance of operations, and conſequently directs his attention in a tranſient and careleſs manner to the leſs ſplendid parts of his profeſſion, may learn the art of mutilating his fellow creatures with eaſe and dexterity, but will never deſerve to be treated as a good Surgeon. The Celebrity which an expert and ſucceſsful operator

rator readily acquires among all ranks of people, has ſomewhat in it ſo brilliant and ſeducing, that young minds are too apt to fix their attention upon this part of his character alone; and they overlook qualifications more ſolid and ſubſtantial: hence it is, that they preſs with anxious ſolicitude to ſee a multiplicity of operations, and perhaps remain ignorant of the diſeaſes for which they were performed, and the ſubſequent mode of treating the Wound. This is an error that hath at different times been lamented and cenſured by the moſt eminent men in the profeſſion, but it is to be feared that the Evil will not be eaſily eradicated. "The ſtudy of Chirurgical diſeaſes which may, and which ought to be cured without having recourſe to operations, ſhould at all times be conſidered as the principal ſubject of a Surgeon's attention. Painful methods are always the laſt remedies in the hands of a man that is truly able in his profeſſion; and they are the firſt, or rather they are the only reſources of him whoſe knowledge is confined to the art of operating. If a Surgeon wiſhes to obtain that knowledge which is capable of

 a happy

a happy application to practice, he muſt paſs through a *Novitiate* in Hoſpitals, and under able Maſters, and learn from thence ſucceſsfully to unite Theory with Practice. Surgery is not to be learnt by deſultory fits of attention; it would demand the ſtudy of a whole life; and is only the fruit of intelligent obſervation, profound reflection, and learned experience. When a man is once properly inſtructed in the principles of his profeſſion, the time that is requiſite to learn the mode of operating is exceedingly ſhort: there is ſomething ſo obvious and groſs in the route which the hand has to take, that we daily ſee the moſt ignorant and vulgar of mankind perform very delicate operations upon brute animals, without the trouble of purchaſing dexterity by a courſe of ſtudy and experiments." *

The

* *Hiſtorie de l'Acad. Royale de Chirurgit. Tom.* iv. *p.* 27.

" A competent knowledge of Anatomy, (ſays a ſenſible writer) a ſteady hand, and a calm temper, are qualifications which may enable any man even of no great experience to perform ſeveral

This inattention to the Scientifick part of Surgery, of which we now complain, does not always originate from involuntary miſtake, it may often proceed from indolence, or diſſipation, and not uncommonly it ariſes from ſome lofty conceit of ſuperior talents. As nothing is more flattering to youthful vanity, ſo nothing is more dangerous and inimical to his progreſs in knowledge, than for a young man to fancy himſelf to be a Genius. He will immediately claim emancipation from the laws of patient obſervation and careful in-

ral of the more capital operations with ſucceſs, and accordingly in almoſt every Hoſpital in Europe, we continually meet with expert operators; yet we do not find, (which is much to be lamented) Surgeons poſſeſſed of ſuch knowledge in prognoſticating the events of Surgical diſeaſes as might be expected. The reaſon of this defect is evident: In the preſent mode of Education, the ſtudent beſtows little attention on the ſubject, and ſuffers himſelf to be wholly occupied in the various Methods of operating, or in minute Anatomical and Phyſiological inveſtigations, which are more curious than uſeful.

Monthly Review, Vol. LXXVII.

duction, which are impoſed upon common-ſized underſtandings; and with a faſtidious impetuoſity will attempt to rend the veil from nature, by the mere powers of his own intellect. If ſhe cannot thus be taken by ſtorm, he will not condeſcend to interrogate her, for by the vaſtneſs of his mental powers, he finds it much eaſier to create a World, than to give a natural hiſtory of that which he inhabits. The Science of healing, like every other branch of natural knowledge, is not the production of a vigorous imagination, nor a lively invention, but it is the offspring of long and diligent experience; and if a man attempts to learn it in any other way than by going from his Study to the bed-ſide of his patient, and returning from thence to his Study again, he will find himſelf miſtaken. The human mind may be dazzled by the boldneſs of her flights, or wounded by the keenneſs of her ſpeculations; but the ſubtilty of nature can only be penetrated by thoſe who ſubmit to become her patient and vigilant ſervants.

Sphynx (ſays the illuſtrious Verulam) was overcome by a man that was lame in his feet; for when men haſten with too much violence and rapidity to ſolve her Enigma's, inſtead of acquiring dominion over the works of nature, they wound and diſtract their own minds by the ſubtilty of their reaſonings.*

Some people indeed have treated Theory and Principles in Medicine as uſeleſs or abſurd, pretending, that good-ſenſe and ſome experience are ſufficient for every practical purpoſe. This kind of language has ſomething impoſing in it at firſt ſight, and is well calculated to entrap the aſſent of the vulgar; but I would beg leave to aſk thoſe Gentlemen, what Good-ſenſe and illiterate experience have been doing for two thouſand years, that they have ſuffered the Art of healing to remain in ſo circumſcribed and imperfect a ſtate? There is no opinion, however abſurd, that may not be defended by ſome perſon's experience; and the obſervations of our forefathers, like the oracles of old, ſpeak ſo equivocally, that a man may very commonly interpret them according to his own con-

* *De Sapientia Veterum.*

convenience. Experiments made by thoſe who are not duly furniſhed with preliminary knowledge, may prove uſeful by accident, but can never be truſted till a mind properly qualified has verified them. A mere experimentaliſt is like a blind man, who feels his way by means of a ſtaff; ſuch an one indeed may ſtumble upon a truth which may afford illumination to a man whoſe ſenſes are perfect; but it is an equal chance whether the diſcoverer himſelf reaps any advantage. Theſe men deſpiſe reaſoning, becauſe they can neither combine ideas, nor deduce conſequences; they contemn Theories becauſe they cannot comprehend them.

Let us hear one of theſe Gentlemen ſpeak in the name of his fraternity: "We are blind men, who have been long accuſtomed to travel in the ſame roads, and by dint of habit have acquired ſo perfect a knowledge of every path, that we are in much leſs danger of going aſtray, than your clear-ſighted people, who have travelled the ſame roads leſs frequently than ourſelves."——It is of little conſequence indeed in fact, whether a man be actually blind, or whether he never opens the eyes

of

of his underſtanding, but gropes his way for twenty or thirty years in the ſame routine of experience as he is pleaſed to call it; for he is perhaps only ſo many years older in obſtinacy and prejudice. Before we can derive advantage from what we ſee, it is neceſſary to learn the art of obſervation; the ſame images may be painted upon the Retina of a Philoſopher and a Peaſant; but the mental proceſs that follows the impreſſion is diſſimilar in a degree which none but a Philoſopher can comprehend. But while I would adviſe the Student to make himſelf acquainted with the Theory, and Principles of his Profeſſion, let me not be ſuſpected of recommending him to indulge in ſimple ſpeculation, and Philoſophical abſtractions; the fancy can conſtruct at will ſeducing ſchemes of ſtructure and derangement, which no more repreſent the reality of nature, than the wild illuſions of a delirium reſemble the orderly operations of a ſober mind. From a ſingle hiſtory, or a ſolitary fact, men will ſometimes raſhly pretend to eſtabliſh general principles; which being deſtitute of baſis and ſupport, are unable to withſtand the ſevere ſcrutiny

of

of a juſt interpreter of nature.* By Theory I mean, "an application of the Laws of Nature to the Solution of particular Phenomena."—A Theory formed by learned experience and legitimate induction, muſt not only be fruitful but luminous; and it will ſerve as a lamp to guide the cautious Student through the dark and hidden labyrinth of nature. It is however to be lamented, that the Theory of Medicine is ſtill in a limited and imperfect ſtate. Even ſtudious and thinking men, ſeem to beſtow more pains to become rich in the knowledge of particular inſtances, than to generalize their facts, and reduce them to Scientifick principles. But indeed until we have "A true and active natural Philoſophy upon which the Science of Medicine can be built," † there is little ſolid ground

* Monſieur *Queſnay*'s obſervations upon this ſubject cannot be too highly commended. See *Mem. de L'Acad. Royale de Chirurgie. Eſſai Phyſique ſur L'OEconomie Animale, Diſcours Preliminaire.*

† *Reſtet unicum, quod pluris eſt, quam illa omnia. Deſideratur nimirum Philoſophia naturalis vera et activa, cui medicinae ſcientia inaedificetur. Bacon. De Augmentis. Scientiarum.—Lib.* iv. *Cap.* ii.

ground to hope for a Theory that would deſerve to outlive its inventor.

We are not to expect to ſee theſe deficiencies ſupplyed, and the fabrick of true Chirurgical Science erected, by the particular labours of ſeparate individuals, much leſs by the powers of a ſingle arm; there muſt be a combination of learned men, who will act in concert under preſcribed laws; and by the conjunction of their labours, it is probable that ſuch diſcoveries and improvements might be effected, as we have ſcarcely yet learnt how to wiſh for.*

Before I cloſe this Preface, it may not be improper to give ſome account of the book to which it is prefixed. The following Work is primarily deſigned as a text-book, for the uſe of the Gentlemen that honour the Author with their attendance on his Chirurgical Lectures. In conformity with this deſign, it is drawn up in a conciſe and Aphoriſtical form; the reader is

* It is not a little extraordinary, that England, amidſt all her learned Societies, cannot boaſt of a Society eſtabliſhed for the purpoſe of promoting Chirurgical knowledge.

is therefore requeſted to remember for whom it was written, and not haſtily to reject the naked facts and unſupported concluſions he may meet with, as many parts of the work are little more than a ſketch of what is delivered in the Lectures. Nor is the order in which the different morbid affections are treated, to be conſidered as an attempt at a Scientifical arrangement. I am by no means ſatisfied with the manner in which Surgery is divided at preſent, but it will ſcarcely become me to criticiſe until I have a better plan to propoſe.

The Doctrine of Inflammation, and its modes of termination, of Gangrene, Eryſipelas, and Cancer, conſtitute a conſiderable part of the out-lines of Scientifick Surgery. In delivering the hiſtory of theſe diſeaſes, I have neither ſervilely imitated, nor faſtidiouſly rejected the labours of my predeceſſors; while I have endeavoured to avail myſelf of their aſſiſtance, I have alſo aſſumed the liberty of thinking for myſelf. Where it hath appeared neceſſary to deviate from the opinions of others, I have generally aſſigned ſome reaſons for my conduct; if they be good ones, the candid will approve, and if they be

ſophiſtical

ſophiſtical, I ſhall rejoice in ſeeing them ſubverted. I am very ſenſible that it is an eaſy matter to adduce plauſible objections againſt almoſt any ſcheme of human invention; it has been my wiſh therefore to avoid as much as poſſible that fondneſs for novelty, which delights in petty reformations; to encourage ſuch a taſte is the indubitable character of a minute mind, which by endeavouring to appear the more learned, only becomes the more troubleſome. If there be any particular part of the work for which an Apology is more immediately requiſite, it is in thoſe Chapters where I ſpeak upon the effects of heat and cold on living Animals. This is a ſubject that hath not been greatly cultivated, and luminous facts are in ſo ſcanty a number, that if little be performed, but little was to be expected. Perhaps it may appear paradoxical to ſome, when they ſee it affirmed, that Heat by its proper effects ſtimulates and invigorates the body, while Cold on the contrary relaxes it; this view of the ſubject is by no means novel, and if it be admitted with proper limitations, there will not be the leaſt oppoſition between theſe aſſertions, and the ſeemingly

contrary effects which occur to the mind on a ſuperficial ſurvey of the ſubject. A proper uſe of the Cold-bath certainly braces and ſtrengthens the Syſtem; the Warm-bath will generally produce relaxation and debility: Theſe are uſeful facts, but they are utterly inſufficient to form the baſis of a Theory of the effects of heat and cold on living bodies. The proper qualities of natural ſubſtances are fixed and immutable, but their effects upon us are ſubjected to conſiderable variation; we are ſure however that the ſame power cannot exert itſelf in oppoſite modes, ſo that if contrary phenomena preſent themſelves, we are to ſeek for the cauſe in the ſtate of the object, and not in the properties of the agent.

If the publication of this firſt part of the Principles of Surgery, ſhall excite a Spirit of Induſtry, and aſſiſt the Chirurgical ſtudent in acquiring a knowledge of his profeſſion, I ſhall think my time and labour well beſtowed; and it will probably encourage me to proſecute the plan to a greater extent.

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CHAP. I.

OF INFLAMMATION IN GENERAL.

SECT. I.

Of the Phenomena of Inflammation.

I. THE term Inflammation when applied to diſeaſe, is figurative, and probably owes its origin, to an opinion which formerly prevailed, that there is a preternatural accumulation of fire in an inflamed part: with more

propriety it may be conſidered as a technical name, not at all deſigned to expreſs the cauſe, nor form, of the morbid affection.

II. In every Phlegmon, or true inflammation, there is a preternatural ſenſibility of the part affected; the action of the Arteries in that part is increaſed, both in velocity and ſtrength; there is an unnatural ſenſe of heat, and often a conſiderable augmentation of temperature: theſe Symptoms are attended with redneſs, itching and pain; a ſenſation of throbbing in the part, accompanied with tumefaction and tenſion; the functions of the part affected, are either aboliſhed, or they are performed with difficulty and irregularity.

III. In every true Inflammation, there ſubſiſts either an abſolute, or relative

relative Plethora; a plethorick ſtate of the general Syſtem, will have conſiderable influence, upon the violence, extent, and termination of this diſeaſe; but the effects of a partial plethora, will be very much regulated by the ſtate of Arterial contraction.

IV. As an inflamed part ſeems to contain more blood, *cæteris paribus*, than during its healthy ſtate; and as the veſſels which contain this fluid, propell their contents with an increaſed momentum and velocity; more or leſs of obſtruction to its tranſmiſſion muſt be the conſequence. But this obſtruction does not neceſſarily ariſe from any change in the qualities of the blood; it may be explained, by reaſons founded upon the effects of lateral preſſure. The increaſed quantity

of

of interſtitial fluid, a neceſſary conſequence of arterial irritation, muſt alſo contribute to augment the obſtruction, and to give bulk to the diſeaſed part.

V. It is very probable, that a true inflammation is principally ſeated in the blood veſſels which are poſſeſſed of a Syſtole and Diaſtole, and that are more immediately affected by the heart's motion.

VI. When the immediate ſeat of Inflammation is aſſigned to the living ſolids, the humoral Pathology is not thereby meant to be rejected. Every conſiderable change in the properties and relative quantity of the fluids, produces an alteration in the motions, tenſion, and ſenſibility of the moving vital ſolids; and every great derangement of vaſcular action, has a proportionate influence upon

upon the condition of the fluids. But to make ſuch a practical application of theſe facts, as to be able in every particular inſtance of the diſeaſe, rightly to ſeparate the cauſe from the effects, is a degree of knowledge highly to be deſired, but not haſtily to be arrogated.

VII. A legitimate inflammation is always accompanied with a painful ſenſibility in the Nerves, and an augmented velocity and ſtrength of Contraction in the Arteries of the part affected.

VIII. Theſe Phenomena are cloſely connected with the preſence of Tone; or ſuch a ſtate of the Syſtem, or of a particular part, as may be deſcribed by the term *Diatheſis Phlogiſtica*. Heat and redneſs, although

though accompanied with more frequent contractions of the blood-veſſels than are natural, by no means characterize a diſeaſe to be truly inflammatory.

IX. An Inflammation is called local, or topical, when it is confined to a particular part of the body; when the whole Syſtem is affected, it is termed general, or univerſal inflammation. When the inflammatory Symptoms run high, and the diſeaſe haſtens rapidly to a termination, it may be denominated an Acute Inflammation. But where the ſymptoms are leſs violent than ordinary, and the diſeaſe gradually increaſes in extent and intenſity, it may be called a Chronic Inflammation.

X. The degree of tumor and diſtention, which attends upon a Phlegmon

Phlegmon ſituated externally, will vary according to the ſtructure of the affected part. Where the cellular membrane abounds, the effects, and mode of termination, will often deviate from thoſe which are conſequent on the inflammation of a tenſe membrane. But although a ſtrict reſemblance of appearances, may not always be exhibited by inflamed parts of different ſtructure, yet the analogy is ſufficiently compleat to warrant the application of our propoſition, by giving it as a general rule, that the Phenomena enumerated at (N° 7) are never abſent: when they are preſent, Inflammation is preſent, and *e contrario*.

XI. There is a conſiderable variety in the ſuſceptibility of different parts, to aſſume the form of inflam-

inflammation; nor does this diſeaſe always proceed with equal violence and activity: but it is not neceſſary to aſſign as cauſes of theſe deviations, diſtinct or oppoſite modes of action in the morbid parts; for an attention to the previous ſtate of the Syſtem, and to the ſeat of the diſeaſe, will generally enable us to account for this want of uniformity.

XII. In applying the preceding doctrine of Inflammation, to thoſe diſeaſes, that are more immediately the objects of Chirurgical treatment, we ſhall not make uſe of the common diviſions. It is propoſed, to conſider an Inflammation, as an Homogeneous diſeaſe, poſſeſſing a determinate character; and to reject all ſuch diſtinctions, as tend to confound it with affections of a very different kind. When it is alſo farther

farther conſidered, that the indications of cure, in every true inflammation, are nearly ſimilar, the propriety of multiplying Species, will be rendered extremely doubtful.

XIII. It hath been already hinted (N° 10, 11.) that there is ſome variety in the Phenomena exhibited by the Inflammation of different parts; *exempli gratia*, when the ſubſtance of the Brain, or of the Lungs, is inflamed, the pulſe is much ſofter, than when the inveſting Membranes of theſe viſcera labour under the ſame diſeaſe. A remarkable depreſſion of ſtrength very frequently attends an Inflamtion of the inteſtines; whereas, when that diſeaſe is ſituated on the ſurface of the body, there is often a temporary augmentation of tone. The peculiar Symptoms which ori-

ginate from the different organization and functions of the parts affected, require a close attention in studying the history of particular inflammations.

XIV. Inflammation ought to be carefully distinguished from Fever, Erysipelas—Erethismus, or Symptoms of Irritation—Scrofula---and from the specifick action of certain Poisons.

XV. As it would be esteemed absurd in Physicks to affirm, that an Atom could move in contrary directions at the same instant of time, so it would be equally unreasonable to suppose, that the human body, or any part of it, could exist in opposite conditions

ditions at the ſame period. To aſſert therefore the ſubſiſtence of an Inflammation in any particular part, while the ſame part labours under an affection which implies a ſtate the reverſe of inflammation, would be inaccurate and unphiloſophical.

XVI. Although the general truth of the foregoing propoſition ſeems tolerably obvious, yet ſuch is the involution of diſeaſes, that appearances ſeemingly inconſiſtent with its validity, very often preſent themſelves. It may not be poſſible to give a perfectly ſatisfactory ſolution to every difficulty which can be propoſed; but without attempting ſo extenſive a taſk, the following

conſiderations are offered, by way of elucidating the general principle, and rendering its practical application leſs difficult. There are many ſtimulating matters that poſſeſs the power of increaſing the action of the Syſtem, without increaſing its ſtrength; as for example, a certain quantity of Wine, will produce a temporary ſtate of tone and vigorous action of the blood veſſels, in a very feeble body; but this high ſtate of excitement is known to be artificial, and dependant upon the continued action of its cauſe. If therefore in Fever, Erethiſmus, Scrofula, &c. Symptoms reſembling true Inflammation ſhall appear, in conſequence of pain, irregular determination of the nervous energy, &c. it may not be improper to conſider thoſe diſeaſes, as acting upon the

the general principle of Stimuli: We ought alſo to remember, that the actual ſtrength of the Syſtem is not augmented by topical congeſtion taking place in Fever; and that ſuch Phenomena do not unequivocally prove the converſion of one diſeaſe into another.

XVII. The preſence of Scrofula, generally implies the preſence of a ſtate of the Syſtem, very remote from a Tonic State; and the ſupervention of an inflammatory diſeaſe, will generally produce a temporary ſuſpenſion of its progreſs and appearance: if any appearances reſembling Inflammation, ſhall therefore take place in a Scrofulous patient, it will be very improper to give them the name of SCROFULOUS Inflammation.

XVIII. In Lues Venerea, the Acrimony of the Poiſon ſometimes excites

excites very ſevere Inflammation in the contaminated parts; but ſuch an affection ought not to be denominated VENEREAL Inflammation: it is of importance carefully to diſcriminate between an accidental occurrence, and the proper and peculiar effects of the Venereal Poiſon.

SECT. II.

Of the REMOTE CAUSE of INFLAMMATION.

XIX. In aſſigning to any known action the prerogative of a Cauſe, nothing more is intended to be implied than this, that the application of certain ſubſtances, &c. is generally followed by, and connected with, determinate, and ſimilar Phenomena.

XX.

XX. Whatever hath a power of greatly accelerating the motion of the heart, and increaſing the force of contraction in the Arteries, may in certain aſſignable circumſtances, prove a REMOTE cauſe of Inflammation.

XXI. Among other REMOTE cauſes, the following may be properly enumerated,

I. The application of Chymical Stimuli, as

a. High degrees of actual heat.

b. Cauſtick ſubſtances.

c. Alcohol.

d. The partial application of cold.

e. Certain poiſons, introduced artificially, or generated within the body.

f. Acrid vapours.

II. The application of Mechanical Stimuli.

a. External

a. External Violence, as dividing, bruiſing, or ſuddenly diſtending any part of the body.

b. Extraneous matters, lodged in any part of the body, whether introduced from without, or generated by diſeaſe; as, Calculous matters, Bones, Bullets, Splinters, &c.

XXII. In the preceding enumeration of Remote Cauſes, the ſame effect has been aſcribed to powerful agents, whoſe mode of action muſt be apparently very diverſe from each other, as Heat, Cold, Poiſons, &c.---But it may be obſerved, that when we call certain effects Specifick, the Epithet is perhaps more applicable to the limited ſtate of our knowledge, than to the nature of the ſubject; for many Phenomena that have been occaſionally thought

to

to be peculiar, have afterwards been reſolved into a common Principle.

XXIII. The application of any of theſe REMOTE Cauſes, (particular poiſons excepted) is not in all caſes neceſſarily followed by a true inflammation; the power and certainty of their action will be influenced by ſeveral circumſtances, amongſt which it may be proper to enumerate the following.

1. The temperament of the Patient.

2. The previous ſtate of the Syſtem.

3. The Age of the Patient.

4. The Climate.

5. The Seaſon of the Year.

6. The general manner of Life.

XXIV. The powerful effects of Habit, in enabling a part to reſiſt the Morbid action of the REMOTE

cauſes of diſeaſe, are very remarkable: and on the contrary, the mildeſt ſubſtances will on certain occaſions be attended with all the conſequences of Acrid Stimuli; for we know by experience, that the ſimple admiſſion of Atmoſpherick Air, into cavities that are not naturally expoſed to its influence, will be very often followed by ſevere Inflammation.

XXV. There is conſiderable variety in the ſuſceptibility of different perſons, to be affected by the application of noxious powers, and of the ſame Perſon at different periods; ſo that the ſame agent may in one inſtance produce Phlegmon, in another Eryſipelas, and in another, Erethiſmus, &c. The Laws by which theſe effects are regulated have not yet been aſcertained.

SECT.

SECT. III.

Of the PROXIMATE CAUSE of INFLAMMATION.

XXVI. In attempting to aſſign the PROXIMATE CAUSE of any morbid alteration in the human body, we ought carefully to diſtinguiſh between a true Phyſical Cauſe, and thoſe which may be termed Metaphyſical: A knowledge of the former conſtitutes real ſcience, and conducts to uſeful practice; to reſt ſatisfied with the latter, is to be contented with empty figments, and barren ſpeculation. If from a defective Natural Hiſtory of Man in the ſtates of health and diſeaſe, we are unable to aſſign an adequate Phyſical Cauſe to explain the Phenomena; inſtead of terminating in-

quiry by feigned, or nominal ſolutions, it becomes us to proſecute the ſubject ſtill farther, with patience and ſagacity.

XXVII. After the foregoing obſervations, it will ſcarcely be expected that we ſhould examine the merits of thoſe cauſes, which are propoſed to us under the different terms of Archeus, Anima, vis Medicatrix Naturæ, Conſtitution, Living Principle, Sympathy, &c. The nature and exiſtence of MORBIFICK and CURING faculties, muſt be firſt explained and demonſtrated, before any interpretations founded upon their agency can be admitted.

XXVIII. By PROXIMATE CAUSE, is to be underſtood a real Phyſical Cauſe, ſo inſeparably connected with the diſeaſe, that the preſence of one implies the agency of the other:

other : upon the exiſtence and duration of the PROXIMATE CAUSE, depends the exiſtence and duration of the diſeaſe, and if the former be changed, there is a correſpondent change in the latter.

XXIX. The opinions of learned and ingenious Men upon this ſubject, have been extremely diverſe; but without entering into a particular enumeration, the principal cauſes that have been aſſigned may be reduced under the following heads, viz. that the PROXIMATE CAUSE of Inflammation is to be ſought for either

1. In a Morbid change of quantity, or quality, in the fluids, or

2. In a ſpaſmodick affection of the living Solids.

XXX. The ſentiments that are included within theſe diviſions, have been

been ſeverally ſupported by appeals to facts, experiments, and learned authorities; and they have been ſucceſſively oppoſed by the ſame ſort of pretenſions: Without preſuming to decide with whom Truth and Science will be found, it is not improbable, that the different Syſtematick writers have been too haſty in forming their ſeveral concluſions. Their inferences cannot yet be ſupported by the premiſes we poſſeſs, and they have each aſſigned to a ſtriking Phenomenon, the dignity of a Law of Nature.

XXXI. As the ſeveral Phenomena that conſtitute an Inflammation, are only learnt by the diligent ſtudy of nature, there can be very little room for debate upon ſuch appearances as are the objects of ſenſe; and when the Symptoms

that

that characterize a diſeaſe, are once duly aſcertained and verified, we ought next to endeavour to detect the Laws by which they are regulated. But to exalt any ſingle Phenomenon to the rank of a PROXIMATE CAUSE, while it impedes farther inquiry, muſt prove a fertile ſource of fruitleſs contention. Let it be granted, that Bile, Acidity, Lentor, Plethora, or Spaſm, is the PROXIMATE CAUSE of Inflammation, and then enquire how much true Science has gained by it. What is that general law of the Syſtem by which the connexion between the REMOTE and PROXIMATE CAUSE is regulated? Any of the cauſes above enumerated may exiſt in the body, without being neceſſarily accompanied by the preſence of Phlegmon; which is a ſtrong preſumption that they are

ſimple

ſimple Phenomena, and by no means characteriſtick of the form or eſſence of the diſeaſe. To expoſe however the fallacies by which different Syſtematick writers have been miſguided, is no part of my preſent buſineſs; but I ſhall endeavour to avoid the cenſure of temerity, by declaring, that I am unable to aſſign in a ſatisfactory manner the PROXIMATE CAUSE of Inflammation.

SECT. IV.

Of the Diſtinctions between PHLOGOSIS, or GENERAL INFLAMMATION, and ERETHISMUS.

XXXII. 1. PHLOGOSIS is attended with an Augmentation of vigour in the actions of the general Syſtem:

ERE-

ERETHISMUS is characterized by a depreſſion of ſtrength.

2. The preſence of ERETHISMUS depends upon the continued application of the REMOTE cauſe: PHLOGOSIS will continue and be progreſſive, after the REMOTE cauſe has ceaſed to act.

3. In PHLOGOSIS the Pulſe is often full, but always hard and frequent: ERETHISMUS is marked by a ſmall, quick, and often an unequal pulſe.

4. PHLOGOSIS may be an idiopathick diſeaſe, it is never ſtationary, but always tends to increaſe or reſolution: ERETHISMUS is a ſymptomatick affection, where the motions in the Syſtem do not appear to be directed to any determinate end.

XXXIII. It is probable that the Symptomatick Fever which often attends the infliction of large Wounds, &c. is not a fever, in the proper ſenſe of the term; but would have a more proper arrangement under the head of PHLOGOSIS, or ERETHISMUS.

SECT. V.

Of the PROGRESS and TERMINATION of INFLAMMATION.

XXXIV. When a particular part of the body is in a ſtate of high Inflammation, and the general condition of the Syſtem is favourable to the diſeaſe, there is reaſon to apprehend an extenſive diffuſion of the complaint, or even that it may become Univerſal.

XXXV.

XXXV. A Local Inflammation may be properly divided into three diſtinct periods; the commencement, the acme, and the termination. The circumſtances that tend to accelerate or retard its progreſs through theſe ſucceſſive ſtages, and to determine its mode of termination, may be referred to the previous ſtate of the Syſtem; to the action of the REMOTE cauſe; and to the organization, functions, &c. of the part affected.

XXXVI. The Progreſs of a PHLEGMON is marked by an increaſe, more or leſs rapid, of all the Symptoms enumerated at N° 2.

XXXVII. A true Inflammation is never ſtationary, but when it is once properly formed is either in progreſſion towards a natural cure; or to the deſtruction of the part;

or it proceeds to a termination in ſome other diſeaſe.

Of RESOLUTION as a termination of INFLAMMATION.

XXXVIII. The RESOLUTION of an Inflammation may take place in different ways; the moſt ſimple mode is that in which the increaſed action of the blood veſſels, &c. (N° 7.) gradually diminiſhes; the other Symptoms ſubſide; no evacuation takes place; and the part aſſumes by degrees its natural ſtate, without ſuffering any derangement of its organization or functions. This may in ſtrict propriety be called a perfect cure of Inflammation.

XXXIX.

XXXIX. Resolution may alſo take place by an effuſion from the exhalant arteries, &c. into ſome cavity of the body, or into the cellular Membrane.

XL. A Spontaneous hemorrhage from the diſeaſed part, or from ſome neighbouring blood-veſſels may produce a Resolution. And it is worthy of obſervation, that the quantity of blood which is evacuated in this way is ſometimes ſo ſmall, as to bear no apparent proportion to the beneficial effects that follow.

XLI. It may be doubted whether *Metaſtaſis* ever takes place in true Inflammation.

XLII. The fluid that is poured out by the exhalant arteries, (39) always contains more or leſs of the coagulable matter of the Blood;

in

in conſequence of this, the cells of the connecting membrane, &c. are often obliterated to a conſiderable extent; and the integuments become preternaturally firm, and loſe much of their mobility. Where effuſion takes place within a natural cavity that hath no external opening, another diſeaſe is conſequently produced.

XLIII. If an Inflammation be excited in two ſurfaces that are naturally deſtitute of Cuticular covering; and when the violence of the diſeaſe is ſubſiding, they are detained in contact for a certain length of time, an adheſion will be the conſequence. There is an analogy between this proceſs, and the union of Wounds by the firſt intention, &c.

XLIV.

XLIV. It does not appear on the ſtricteſt examination, that the eſſential Characters of that Inflammation which is followed by an adheſion of contiguous ſurfaces, are at all diverſe from that which terminates in a very different manner. Hence it appears very improper to make an accidental mode of termination, the foundation for eſtabliſhing a diſtinct ſpecies of the diſeaſe.

Of SUPPURATION, as a termination of INFLAMMATION.

XLV. When an Inflammation has ſubſiſted in a very vaſcular and ſenſible part for a few days, it may be expected to terminate by SUPPURATION. The period aſſigned for the commencement of this proceſs

hath

hath been the fourth, or the ſixth day; but abſolute preciſion upon this point is neither attainable, nor important; for the formation of purulent matter will always be influenced by the general ſtate of the Patient's health, the violence of the diſeaſe, and the ſtructure of the part, &c.

XLVI. SUPPURATION is immediately preceded by an exacerbation of the inflammatory Symptoms;—it is generally (not conſtantly) attended with rigors, ſhooting pains, and a ſenſe of throbbing in the part; as it proceeds, there is a gradual remiſſion of pain and tenſion, the redneſs upon the ſurface is leſs vivid, there is a gentle ſubſidence of the tumefaction, and at length it is known to be completed, by the evident fluctuation of a fluid,

and

and a conical figure of the part affected. To the aſſemblage of theſe Phenomena, we give the name of ABSCESS.

XLVII. An Abſceſs is a circumſcribed cavity formed by diſeaſe, and containing Pus; its internal ſurface may be conſidered, as being ſomewhat ſimilar to that of an ulcerated part.

XLVIII. The cellular membrane is moſt commonly the ſeat of Suppuration, and principally forms the *parietes* of an Abſceſs; in the natural and healthy ſtate, Pus, or any other fluid would be readily diffuſed through its cells; but the previous Inflammation produces an union of its *laminæ* ſufficient to render it impermeable.

XLIX. Purulent matter is generally firſt formed about the

centre of the Phlegmon; and in proportion as the quantity increaſes, the cavity of the Abſceſs is enlarged, and becomes moſt prominent on that ſide where there is the weakeſt reſiſtence. Hence, an Abſceſs ſometimes burſts into a natural cavity; or when the matter is confined by an Aponeuroſis, or is ſeated very deeply among parts that reſiſt its preſſure, one or more ſinuſſes may be formed of conſiderable extent, the aperture of which may be at a conſiderable diſtance from the original ſeat of the diſeaſe; and if the matter exiſt in a very large quantity, the gravitating force of the fluid will give it a tendency to ſa depending part. From hence it may be underſtood, why an Abſceſs moſt commonly burſts upon the ſurface of the body. Med. Obſerv. Vol. 2.

L.

L. The nature of Pus, and the mode of its formation, hath given occaſion to great diverſity of ſentiment: it is not our intention to examine all the opinions that have been propoſed upon this ſubject, but only to hint at ſome of the principal ones.

LI. It hath been imagined,

1. That Pus conſiſts of the Serum of the blood, deprived of its more watery part, and converted into a new ſubſtance by fermentation.

2. That Blood, or a mixture of Blood and ſolid parts in a ſtate of diſſolution, chiefly contribute to the formation of this fluid.

3. That the ſolid parts are often actually melted down into Pus.

4. That Pus is a ſecretion from an Ulcerated ſurface.

LII. It is very certain that Pus is

not the produce of the putrefactive fermentation; its ſenſible qualities are very remote from thoſe that are exhibited by a putrid fluid.

LIII. Nor is Blood, nor any of the ſolid parts ever converted into true Pus: when blood is once extravaſated, the Syſtem has no power to produce a change in its properties; it either coagulates, or degenerates into an offenſive ſanious matter.

LIV. As in the formation of an Abſceſs, there is neceſſarily more or leſs of dilaceration of Veſſels and deſtruction of ſolid fibres, it is probable that the matter is not wholly free from theſe ſubſtances; but the quantity of ſolid parts that is deſtroyed, bears no proportion to the quantity of Pus that is evacuated from an Ulcerated ſurface.

LV.

LV. Dead Animal matter certainly does not furniſh the Pus *album læve et æquale*; for in caſes of Sphacelus, purulent matter is not evacuated until a ſeparation between the dead and the living parts has begun to take place.

LVI. Purulent matter does not exiſt formally in the Blood; it is furniſhed by living veſſels, in conſequence of previous Inflammation, and probably undergoes ſome change after it is poured upon an Ulcerated ſurface, or evacuated into the cavity of an Abſceſs. *Vide Fizes & M. Queſnay, Sur la Suppuration.*

LVII. It is probable that a diſcharge of true Pus always implies more or leſs of a deſtruction of the ſolid parts, or the exiſtence of Ulceration.

LVIII.

LVIII. There is a kind of matter very much reſembling Pus, that is diſcharged from the ſurfaces of inflamed membranes, and which may with ſome propriety be conſidered as a ſecreted fluid. No experiments that have been yet made publick, have proved ſufficient to eſtabliſh certain *criteria* for diſtinguiſhing Purulent matter, *at all times*, from what has been called inflammatory exudation. Med. Obſerv. Vol. 2. Pott's Works, Vol. 1.

LIX. The fluid that is excreted from a ſuppurating ſurface, does not always poſſeſs the properties of good healthy Pus; the varieties that are met with will depend either upon the previous ſtate of the fluids from which the purulent matter is furniſhed; upon the action of the veſſels by which it is formed;

or

or it will be influenced by the condition of the fluid and ſolid parts taken conjointly. This ſubject may be illuſtrated by applying the preceding obſervations to contagious matter;---to the diſcharge from Scrofulous Ulcers;---and to the matter of critical Abſceſſes, &c.

LX. The fluids that are evacuated from different Ulcerated ſurfaces may be arranged under the following heads, viz.

Ichor,
Sanies,
Sordes,
Malignant Matter. *Queſnay.*
Contagious Matter.

LXI. Ichor, is a thin, watery, acrimonious diſcharge; it is frequently attendant on Cutaneous diſeaſes, ſuperficial Ulcerations, and painful, ill-conditioned ſores.

It

It ought to be diſtinguiſhed from ſerous effuſions under the Cuticle; from acrid fluids poured out by Mucous membranes; from Lymphatick diſcharges, &c.

There is a ſpecies of Ichor which was called *Melicera* by the Greeks, that is diſcharged from ſores which are ſeated on Ligaments, or about the Articulations. This ought to be diſtinguiſhed from *Synovia*, and from the fluid that is contained in *Burſæ Mucoſæ*.

LXII. SANIES, is a fetid Ichor mingled with ſome of the red globules of the blood. It is often diſcharged by varicous ulcers; by extremely irritable ſores; and ſuch as are diſpoſed to form repeated ſloughs, or to become Gangrenous. It muſt be diſtinguiſhed from that diſcharge which follows a few hours after

after the infliction of large wounds, &c.

LXIII. SORDES, is a matter of denſer conſiſtence than Sanies; it is grey, or of a leaden colour, and ſometimes reſembles an imperfectly coagulated maſs: When a ſubjacent bone is affected, it emits a very offenſive odour of a peculiar kind. A ſilver probe imbued with this fluid, becomes of a dark colour.

LXIV. MALIGNANT Matter, is a fluid that is often diſcharged from thoſe impoſthumes, which form in Peſtilential diſeaſes; the vapour aſcending from this matter has a ſudden and powerfully injurious effect upon the Nervous Syſtem, but does not communicate any ſpecifick diſeaſe.

LXV. CONTAGIOUS matter being received into the body, is multiplied, and produces a diſeaſe ac-

cording to its own Specifick nature.

Are there any ſenſible qualities by which contagious matter can be diſcriminated from that which is void of infection?

LXVI. The Puriform fluid that is evacuated by Mucous Membranes; from Scrofulous glands; and that which is alſo contained in various encyſted tumours, ſhall be deſcribed when we treat upon thoſe particular diſeaſes.

LXVII. Chirurgical writers have divided Abſceſſes into the SIMPLE, where the matter is contained within one circumſcribed cavity; the COMPOUND, when the Pus is diſperſed into ſeveral Sinuſſes; and the COMPLICATED, in which a ſubjacent bone is carious, or the Abſceſs is connected with ſome particular virus, &c.

LXVIII.

LXVIII. An Abſceſs may be denominated IDIOPATHICK, when it does not appear to be connected with any preceding diſeaſe.

LXIX. If during the preſence of a Local diſeaſe, an Abſceſs ſhall ſupervene in a diſtant part, without removing, or alleviating the original affection, it may be termed DEUTEROPATHICK: *exempli gratia*, A ſuppuration of the Liver ſometimes occurs in caſes of Inflammation and Suppuration of the Meninges, or ſubſtance of the Brain, &c.

LXX. If a connexion can be traced between an Abſceſs, and a preceding morbid appearance, ſo that the latter is evidently the cauſe of the former, it may with propriety be called a SYMPTOMATICK ABSCESS: *exempli gratia*, The Wound of an

Abſorbent veſſel in the finger or toe, is ſometimes ſucceeded by the Suppuration of an Abſorbent gland in the groin, or in the Axilla.

LXXI. If an Ague, continued fever, &c. ſhall terminate and diſappear immediately upon the Apoſtemation of an external part, it may be termed a CRITICAL ABSCESS.

How far may ſuch a Suppuration be eſteemed the cauſe, the effect, or the ſign of a Criſis?

LXXII. It is not neceſſary to conſider a Critical Abſceſs as a cavity into which the *Materies Morbi* is depoſited; for it may be doubted whether the Pus contained within it ought to be regarded as contagious matter. (N° 65) If any Specifick virus be ſuppoſed to be preſent, it certainly exiſts in a diluted ſtate.

LXXIII.

LXXIII. Thoſe parts of the body that are naturally poſſeſſed of an inferior degree of ſenſibility, and are ſcantily ſupplied with veſſels that carry red blood, as Tendons, faſciæ, ligaments, &c. do not exhibit the ſame Phenomena when diſeaſed, which appear in fleſhy and Muſcular parts.

LXXIV. It hath been commonly obſerved, that the proceſs of Suppuration is completed more ſpeedily, when the Abſceſs is ſituated near the centre of the body, than when it is ſeated in an extreme part.

SECT. VI.

Of the TREATMENT of INFLAMMATION.

LXXV. There are few diſeaſes that fall within the province of the Surgeon, in which the well directed efforts

efforts of Art appear to greater advantage, and wherein a judicious practice meets with more diſtinguiſhed ſucceſs, than in the treatment of Inflammation: it is a common and highly intereſting diſeaſe, but is happily very much within the power of remedies.

LXXVI. An Inflammation ſometimes admits of a natural cure, and terminates in the manner deſcribed at (N° 38.)

LXXVII. Before any artificial means are uſed to cure an Inflammation, it will be requiſite to aſcertain,

1. Whether the preſent affection ſeems to be the cure of another and more important diſeaſe.

2. Whether it be the conſequence of extraneous matters lodged in ſome part of the body.

3.

3. If the means to be employed will do more harm to the general Syſtem, than the diſeaſe will, if it be ſuffered to terminate ſpontaneouſly.

LXXVIII. In the firſt four or five days of the diſeaſe, we are to make attempts to obtain a reſolution of the Inflammation.

This rule is a general one, but it nevertheleſs admits of ſome exceptions.

LXXIX. INDICATION the firſt.

To remove the REMOTE cauſe of the diſeaſe, if poſſible. It is proper however to be obſerved, that the removal of the REMOTE cauſe, is not neceſſarily attended with the cure of the diſeaſe; for an Inflammation may act as a REMOTE cauſe of its own continuance.

LXXX.

LXXX. The effects of external Stimuli may be obviated, as

1. Cold, By Air of a moderate temperature.

2. Motion, By a Supine posture.

3. Distention, By warm Vapours, warm Oil, Tepid Baths, mild Cataplasms, &c.

4. Acute Pain, By Opium.

The effects of Stimulating matters formed, or existing within the body, may be corrected,

1. By destroying the poison with Specifick remedies.

2. Diluting the Acrid matters.

3. Defending the parts affected from their influence.

4. Diminishing Sensibility partially, or generally.

The application of these principles will be more fully elucidated, when

when they are applied to the treatment of Particular Inflammations.

LXXXI. INDICATION the Second.

To take off that ſtate of the blood-veſſels, in which Inflammation conſiſts. (N° 7.)

1. This is to be attempted by diminiſhing the quantity of Blood that is contained in the Body, by bleeding from a large vein, or opening an Artery.

2. The Velocity and Momentum of the blood in the veſſels of a particular part, may be leſſened by the application of Cupping Glaſſes, by Scarification, Leeches, Arteriotomy.

LXXXII. The quantity of Blood that ought to be evacuated, is to be determined by the Temperament of the patient, the ſeverity of the Inflammation, and the importance of the diſeaſed part to the purpoſes of life.

LXXXIII. Twelve Ounces of Blood, taken away ſuddenly from a large orifice, will have a more powerful influence in diminiſhing Inflammation, than twenty-four Ounces extracted at three ſucceſſive bleedings; eſpecially, if ſeveral hours be ſuffered to elapſe between each evacuation.

LXXXIV. It is probable, that thoſe reaſonings upon the effects of local and general blood-letting, which are merely founded upon the CIRCUITION of the blood; by diſcouraging topical evacuations, have proved detrimental to the practice of Surgery.

LXXXV. 3. To evacuate the Syſtem, and promote derivation, by Purgatives, eſpecially ſuch as operate with the leaſt irritation, as

Manna,

Manna, Neutral Salts, large doſes of Cream of Tartar, Enemata, &c.

LXXXVI. The good effects of Catharticks are more evidently marked in Topical, than in General Inflammation; more eſpecially in thoſe caſes, where there is an affection of the Brain, or its inveſting Membranes.

LXXXVII. To ſubdue an Inflammation by making large evacuations, is not a very Scientifical mode of curing the diſeaſe; it were highly to be deſired, that we were in poſſeſſion of a method of treatment which would cure an Inflammation without debilitating the Syſtem, and thus laying the foundation of other diſeaſes.

LXXXVIII. INDICATION the Third.

To diminiſh the increaſed action of the blood-veſſels, by ſuch remedies, as do not conſiderably weaken the actual force of the Syſtem, e. g. by SEDATIVES, as

1. The Vegetable and Foſſil Alkali in proper doſes.

2. Neutral Salts in large doſes, but ſufficiently diluted, ſo as to obviate their effects as direct Stimuli.

To which may be added,

3. Abſtinence from all ſolid food.

4. The plentiful uſe of diluents, in a tepid ſtate.

5. Where PAIN acts as a REMOTE cauſe of Inflammation, OPIUM muſt be given: but on ſuch occaſions, it ought to be exhibited in very large quantities: for if it be not adminiſtered in doſes equivalent to produce the propoſed effect, it will only augment the diſeaſe.

LXXXIX.

LXXXIX. The Remedies that may be employed externally, in caſes of TOPICAL Inflammation, are

1. Cold Air, Cold Water, Ice, or Snow.

2. Preparations of Lead, Vitriol, Alum, Solutions of different Neutral Salts, as Sal Armoniac, &c.

3. Relaxants, as Warm Water. Warm Vapour. Oil. Mild Emollient Cataplaſms, &c.

XC. In the uſe of Subſtances that are intenſely cold, or highly repellent, great caution is required, as they have, when imprudently applied, been followed by Gangrene. There is alſo an important diſtinction between applications that are actually cold, and diminiſh the Action of a part, by reducing its heat conſiderably below the natural temperature; and thoſe ſubſtances, that

that are only potentially cold, and leſſen the heat, by reſtraining the immoderate action of the blood-veſſels.

XCI. Some writers have recommended the excitement of another Inflammation in the vicinity of the diſeaſed part; but this is a mode of practice that ought very ſeldom to be adopted early, in caſes purely inflammatory.

XCII. If a Reſolution of the Inflammation does not follow, after properly uſing the remedies enumerated above, a SUPPURATION may be expected to take place.

XCIII. A RESOLUTION of every Phlegmon ought not to be attempted, for there are ſeveral circumſtances which frequently render it proper to promote the Suppurative

purative proceſs, from the beginning of the diſeaſe.

1. When experience has proved, that a dangerous diſeaſe, ſituated in a part that is contiguous to the Inflammation, will probably be alleviated, or cured by the formation of an Abſceſs: *exempli gratia*, Curvature of the Spine, &c.

2. Where we have reaſon to expect the evacuation of extraneous ſubſtances.

3. Where a previous diſeaſe has exiſted in ſome Viſcus, and there is reaſon to hope for an Evacuation of Matter, &c. upon the ſurface of the body: e. g. Abſceſs of the Liver, &c.

4. When there is reaſon to ſuſpect, that the Phlegmon is a CRITICAL Inflammation. N° 71.

Reſolu-

Reſolution is not always to be avoided becauſe the Inflammation is Critical; but very often becauſe the means that ought to be employed, are contraindicated by that ſtate of the Syſtem, in which critical depoſitions moſt commonly take place.

5. When a SYMPTOMATICK PHLEGMON (N° 70) appears, in conſequence of the Wound of a Nerve, Abſorbent Veſſel, &c. Suppuration is generally to be promoted; more eſpecially if any poiſonous matter were introduced into the Wound. This rule however, is not always applicable, when we poſſeſs a Specifick remedy, that is capable of deſtroying the Activity of the Morbid matter.

6. When the ſtructure of the Inflamed part renders it probable, that by

by undergoing a Suppuration, it will be ſooner and more completely reſtored to its functions in the Animal Economy.

7. If the Inflammation has ſo conſiderably deranged the organization of the affected part, that its healthy functions can never be reſtored.

XCIV. There is a certain degree of motion requiſite in the veſſels of an Inflamed part, in order to the production of a good Suppuration; it ought to be ſomewhat below Inflammatory action, but the preciſe point can only be aſcertained by experience, and does not admit of the eſtabliſhment of a general rule.

XCV. Suppuration is promoted,

1. By moderating the Inflammation, when it is extremely violent.

2. By diminiſhing the ſeverity of Pain.

Large doſes of Opium are of diſtinguiſhed ſervice, when Suppuration is diſturbed by ERETHISMUS.

3. The vigour of the Syſtem is to be ſuſtained by a proper uſe of Peruvian Bark, Opium, Wine, and other fermented liquors.

XCVI. To the part affected, warm and relaxing applications are generally proper; as Fomentations, Poultices of Bread, Milk and Oil, Linſeed, &c. They ought to be applied warm, and be frequently renewed.

XCVII. The general intentions of applying the remedies enumerated (N° 96) are chiefly by way of leſſening the effects of diſtention: to preſerve an uniform and moderate heat in the part, and thus to alle-

alleviate pain, &c. Stimulating applications to a highly inflamed part are very ſeldom admiſſible, when we deſire to promote the formation of Pus.

XCVIII. Where an Abscess is deeply ſeated in ſome important part of the body, ſo that it is of conſequence to the Welfare of the Patient that it be conducted ſpeedily to Maturation, and that the Pus be evacuated at an external opening; heating and ſtimulating applications may be uſed with propriety; as Subſtances containing Turpentine, Reſins, the warm Gums, Cantharides, or acrid Vegetables.

XCIX. The complete Maturation of Indolent and Glandular Tumors, which originate from cauſes extremely remote from true Phleg-

monous Abscesses, may be assisted, by

1. Dry Cupping, Violent Exercise, the applications mentioned at (N° 98), strong Rubefacients, Electricity, repeated Blistering, a proper application of actual Heat.

2. The Internal remedies that were described at (N° 95), to which may be added Mercury and Steel.

C. When the Abscess is completely formed, the cohesion of the integuments at the most prominent part is gradually weakened; erosion takes place in one or more points, and the contents are evacuated spontaneously.

CI. Very frequently the spontaneous rupture of an Abscess may be permitted; sometimes it must be insisted upon; but it will also in many cases be prudent, or even absolutely

ſolutely neceſſary, to diſcharge the matter contained in it by an Artificial opening.

CII. There are certain caſes, in which it is neither ſafe nor expedient to wait for a natural eroſion of the integument; as in deep-ſeated Abſceſſes, that are ſeparated by a thin parietes from an important natural cavity: —*Paronychia*;—where matter is confined by an *Aponeuroſis*, or the *Perioſteum*, &c. and in general, where the parts in the vicinity of the diſeaſe admit of diſtention with great difficulty.

CIII. It has been ſaid, that "Matter is always ripe, and, as "matter merely ought to be diſ-"charged as ſoon as poſſible; but "as matter ſeated at ſome depth "in the body, and confined by "inflamed fleſh, it is proper that

"it

" it ſhould work its way gradually, " and riſe to the Surface before it " be let out." In this propoſition, the beneficial effects of Pus upon the hardneſs of the ſurrounding parts; the gradual reſtoration of the inflamed and obſtructed Veſſels to their natural actions; and the favourable healing of the ſubſequent Ulcer ſeem to be wholly overlooked. Beſides, the attention of the Surgeon will be directed to the Maturity of the Abſceſs, and not to any ſuppoſed ripeneſs of the contained fluid.

CIV. As it is ſometimes the duty of a Surgeon, to retard the premature rupture of the Parietes of an Abſceſs: it is alſo proper, when the quantity of Pus is very conſiderable, and the patient is weak,

to

to prevent the Matter from being too haſtily evacuated.

CV. Three different methods of opening Abſceſſes are employed, viz. by

1. Simple Inciſion,
2. Eroſion,
3. Seton.

Each of theſe modes poſſeſſes its peculiar advantage; but it is ſcarcely poſſible to lay down general rules in ſo preciſe a manner, that the practitioner will always be able to take a decided part.

CVI. It will be ſufficient for our preſent purpoſe to obſerve: That, where Matter is deeply ſeated;---when it is in the vicinity of large blood veſſels and nerves;---when the matter is ſo widely diffuſed that a large opening is neceſſary;---when the ſkin that retains the Pus is ſoft, thin,

thin, and little diſeaſed;---or when it will not be deſirable to keep the Ulcer open for any particular purpoſe, &c.---the knife will be preferable to Cauſtick.

CVII. The Application of Cauſtick is to be preferred before the knife;---When maturation has proceeded ſlowly, and the Suppuration is partial;---when the integuments are conſiderably vitiated:---When it will be neceſſary to keep the Ulcer open on account of ſome diſeaſe at the lower ſurface of the Abſceſs;---and generally in the Suppuration of Glandular parts, &c.

CVIII. The Seton may be advantageouſly employed where Maturation is complete, and the ſkin in a healthy ſtate;---to preſerve important parts that are included within an Abſceſs, from much injury;

jury ;---to avoid the deformity of a large cicatrix ;---or where it will be uſeful to ſupport an irritation for ſome length of time, in the diſeaſed part, &c.

CIX. If the ſpontaneous rupture of the Abſceſs be anticipated by art, and the Seton is not employed, it is generally proper, by a free inciſion, &c. to lay open the whole internal ſurface of the Abſceſs. The treatment of the Ulcerated cavity, and the doctrine of ULCERS in general, will be diſcuſſed in another place.

CHAP. II.

SECT. I.

Of the FURUNCULUS or BOIL.

CX. THE BOIL is a hard circumſcribed and exquiſitely painful Phlegmonous tumor, ſeldom exceeding the magnitude of a Dove's egg; the ſeat of this diſeaſe is in the ſkin, it ſeldom ſuppurates completely, and generally ariſes from an internal Cauſe.

CXI. This tumor generally appears under the figure of a Cone, the baſe of which is conſiderably below the ſurface, but its apex is rarely

rarely much elevated above the level of the ſkin; upon the moſt prominent point of the Boil, there is commonly a whitiſh or livid puſtule, exquiſitely ſenſible to the touch; and immediately beneath this, is the ſeat of the Abſceſs: the matter is ſometimes ſlow in forming, and is ſeldom found to exiſt in a conſiderable quantity.

CXII. This little abſceſs is moſt generally ſuffered to rupture ſpontaneouſly; and the diſcharge conſiſts of Purulent matter, mixed with a portion of the red Globules of the blood; the cavity from which the matter was evacuated, contains a ſlough, which muſt be removed before the Ulcer can heal.

CXIII. There is no part of the body that abounds with cellular membrane, which is wholly exempt-

ed from becoming the ſeat of this diſeaſe. Sometimes the Furunculus is ſolitary; at other times, they appear in conſiderable numbers, eſpecially among children, or immediately after the termination of ſome Acute diſeaſe.

CXIV. The preceding hiſtory is deſcriptive of what may properly be termed the ACUTE BOIL; there is alſo a CHRONICK FURUNCLE, which frequently occurs in ſubjects that have ſuffered ſeverely from the Small Pox, Meaſles, Lues Venerea, Scrofula, and in conſtitutions that have been injured by the uſe of Mercury, &c.

CXV. The Chronick Boil, is commonly ſituated upon the extremities; it is about the Magnitude of the Acute Boil, and has a hard circumſcribed baſe; its progreſs is not

not attended with much pain; there is no conſiderable diſcolouration of the ſkin, until Suppuration be a good deal advanced; and maturation is ſeldom completed in leſs than three or four weeks. This, like the former, ſometimes appears in a conſiderable number at a time.

CXVI. The matter that is evacuated from this Abſceſs, is an inodorous Sanies, and is always of a thinner conſiſtence than good Pus; when the Boil has been large, and unuſually ſlow in ſuppurating, a conſiderable quantity of the *tela Celluloſa*, &c. will be caſt off from time to time, in the form of ſloughs, ſo as to leave a very deep cavity, before the Ulcer aſſumes a healthy appearance.

CXVII. The FURUNCULUS is a diſeaſe which ſeldom occupies the atten-

attention of the Surgeon, unleſs it be of an unuſual magnitude, or accompanied with very diſtreſſing Symptoms. It may in general be regarded, rather as a troubleſome complaint, than as a dangerous one.

CXVIII. The ACUTE and CHRONICK Furuncle, ought to be diſtinguiſhed, from Phyma, Phygethlon, Epinyctis, Anthrax, &c.

SECT. II.

The MODE of TREATMENT.

CXIX. It is ſeldom deſirable to obtain the RESOLUTION of a Boil; and if it were attempted, the efforts would moſt commonly be ineffectual.

CXX. SUPPURATION muſt be promoted by the means enumerated at

at N° 96—98, &c. The Maturation of the CHRONICK Furuncle, will be powerfully aſſiſted, by frequent and long continued expoſure to the Vapour of hot water.

CXXI. The internal exhibition of Peruvian Bark will be ſometimes adviſable; and alſo a liberal uſe of Opium.

CXXII. After the evacuation of the matter, a common mild digeſtive ointment, may be applied to the Ulcer; but where the quantity of corrupted Cellular membrane is conſiderable, Red Precipitate may be employed with advantage.

CXXIII. The general ſtate of the Syſtem muſt be corrected by remedies ſuited to its peculiar ſituation.

CXXIV. It were highly deſirable to remove if poſſible, that diſpoſition

tion of body, which is favourable to the production of Boils. We may ſometimes ſucceed in this attempt, by the uſe of Peruvian Bark, Sea Bathing, Acids, Steel, &c.

In ſome Caſes, thoſe remedies that promote a flow of Urine, while they diminiſh vaſcular action, may be ſucceſsfully employed; as Cream of Tartar, Nitre, Rochelle Salt, Vegetable or Mineral Alkali, in a diluted State.

CHAP.

CHAP. III.

SECT. I.

Of the ABSCESS of the BREAST.

CXXV. AS the INFLAMMATION and SUPPURATION of the Breaſt, is a diſeaſe to which Puerperal Women, at certain periods, are peculiarly liable ; our attention will be chiefly directed to the Hiſtory and Treatment of what is commonly termed the MILK ABSCESS.

CXXVI. The attack of this complaint is uſually preceded by Rigors, which are ſoon ſucceeded by heat, thirſt, reſtleſſneſs, loſs of appetite, and other Symptoms of a

general affection of the Syſtem. The ſkin of the breaſt is ſometimes univerſally red; at other times, the redneſs appears in different parts of the breaſt, in diſtinct and irregular patches. The Breaſt enlarges, becomes tenſe, heavy and painful: if the ſecretion of Milk continue, that fluid is more or leſs changed in its natural qualities, and it cannot be extracted without pain and difficulty.

CXXVII. The ſtructure of the Breaſt being partly Glandular, and partly Cellular; the Inflammation may therefore be ſeated, either in the conglomerated Gland which occupies the centre of the Breaſt, or in the enveloping integuments. When it is confined to the ſkin and cellular membrane, the inflamed part is uniformly diſtended; when the glandular part is alſo affected,

the

the enlargment is irregular, and ſeems to conſiſt of one or more large tumors, ſituated in the ſubſtance of the Breaſt, and the uneaſineſs is often communicated to the Glands in the Axilla. The ſecretion of the milk is not always ſuppreſſed, when the Inflammation is confined to the integuments; and Suppuration takes place more ſpeedily than in affections of the Glandular part.

CXXVIII. If the Inflammatory Symptoms regularly increaſe for four or five days, a Suppuration may be expected; but where the progreſs of Inflammation has been ſlow, and its degree hath been very moderate, a RESOLUTION may frequently be obtained, at the diſtance of ten, or fourteen days, from the firſt appearance of the diſeaſe.

CXXIX. The period, about which a Woman is moſt commonly attacked with the MAMMARY ABSCESS, is within the firſt three months after Parturition; but it may intervene at any period from thence to the time of Ablactation.

CXXX. Of the REMOTE Cauſes that have been aſſigned for the appearance of this diſeaſe, we ſhall only enumerate the following, viz.

1. Sudden, or Violent perturbation of mind.

2. Repreſſing the Secretion of Milk at an early period.

3. Expoſure to Cold.

4. Too free an uſe of the arms, when the Breaſts are diſtended with Milk.

CXXXI. The MAMMARY Abſceſs frequently occurs, where no evident

evident cauſe can be aſſigned for its appearance.

CXXXII. In the SUPPURATION of the Breaſt, the Purulent matter is not always contained in one cavity; but ſeveral diſtinct Abſceſſes form in different parts, and are perhaps maturated at different periods. More commonly, the matter is evacuated from the orifice of an Abſceſs that is ſituated near the Nipple.

CXXXIII. The Glandular ſtructure of the Breaſt is ſometimes ſo conſiderably altered, that after a future parturition, it cannot ſecrete any Milk; but the Prognoſis of the Milk Abſceſs (as it is called) is almoſt always a favourable one, as there is nothing in its nature at all Analogous to Schirrhus or Cancer.

CXXXIV.

CXXXIV. Where a Scrofulous tumor has been preſent in the breaſt for many Months, or even ſeveral years, it will often diſappear, ſoon after the termination of the Abſceſs of the Breaſt.

CXXXV. The Breaſts of thoſe Women, that have never been pregnant, may be attacked with true Inflammation, the progreſs and termination of which, do not materially differ from the MAMMARY ABSCESS. Nor are Men wholly exempted from a ſimilar diſeaſe.

CXXXVI. The MAMMARY Abſceſs ought to be diſtinguiſhed from Scrofulous affections of this part, and from Schirrhus.

SECT.

SECT. II.

Of the TREATMENT of the MAMMARY ABSCESS.

CXXXVII. If the Surgeon be called at an early period to treat this complaint, it will generally be proper to attempt a RESOLUTION of the Inflammation.

CXXXVIII. To obtain this mode of termination, a very free uſe of general blood-letting hath been often recommended. This however is a practice, that can ſeldom be adopted with prudence in large cities, or where the Patient is of a delicate conſtitution. I do not intend to ſay, that General Blood-letting is always inadmiſſible; but I never once ſaw it neceſſary, in Publick, nor in Private practice.

CXXXIX.

CXXXIX. 1. Topical blood-letting, properly conducted, is a remedy that cannot be too highly recommended.

2. Saline Laxatives adminiſtered at due intervals.

3. Moderate Abſtinence.

4. A Suſpenſion of the Inflamed Breaſt.

5. Moderate Bandage, by means of Adheſive Plaſter, artfully applied.

6. Gentle friction of the breaſt with Warm Oil.

7. To obviate the effects of diſtention by Milk, by gently extracting it at proper intervals.

8. Saturnine applications.

9. Solutions of Neutral Salts, as Sal Armoniac, &c.

CXL. If the Inflammation tends to SUPPURATION, it may be promoted

moted by the means enumerated at N° 94—95.

CXLI. The Abſceſs ought in general to be permitted to rupture ſpontaneouſly; and the uſe of the Lancet or Knife ought by all means to be avoided, unleſs there be a plain and abſolute neceſſity.

CXLII. The application of a mild Digeſtive, covered by a Poultice of Bread and Milk, is generally ſufficient for the Cure of the Ulcer.

CXLIII. If an unpleaſant hardneſs remains in the Breaſt, after the termination of this diſeaſe, it will commonly yeild to ſaponaceous Applications,---Emeticks, ---Mercury, ---or Cicuta.

CHAP. IV.

SECT. I.

OF THE PARONYCHIA---PANARIS--- OR WHITLOW.

CXLIV. THE PARONYCHIA is a Phlegmonous tumor occupying the end of the finger; it is generally attended with excruciating pain. The moſt uſual mode of its termination is by Suppuration, but not unfrequently, it is attended with a Mortification of the integuments and bone.

CXLV. As the nature and preciſe ſituation of this diſeaſe admits of ſome variety, and the ſame mode of treat-

treatment does not apply in every inſtance, it will be proper to divide it into different Species: I have adopted the following mode of diviſion as a convenient one.

1. The Cutaneous,
2. The Benign,
3. The Malignant,
4. The Venereal,

} PARONYCHIA.

CXLVI. The CUTANEOUS Paronychia is ſeated at the end of the finger, immediately below the Cuticle, and ſometimes ſurrounds the finger, and root of the nail. The ſkin is very little diſcoloured; it ſpeedily advances to Suppuration; and when this proceſs is completed, the cuticle appears almoſt tranſparent. After the contents of this little Abſceſs are evacuated, the Ulcer ſeldom demands any particular attention.

CXLVII. The BENIGN Paronychia, is ſituated in the cellular membrane under the ſurface of the Cutis; its attack and progreſs are attended with a more acute and throbbing pain than the cutaneous; Suppuration proceeds more ſlowly, and matter is frequently formed under the nail. The whole hand is more or leſs affected with pain and tenſion, and uneaſineſs is often felt along the courſe of the Arm. The ſeverity of the pain frequently prevents ſleep, and the whole Syſtem is thrown into ſome diſorder.

CXLVIII. The MAGLIGNANT Paronychia, is accompanied with a deeply-ſeated, and intenſe pain, at the end of the finger; the tumefaction of the diſeaſed part is not conſiderable, but the hand, and frequently the whole arm is ſwelled,

tenſe

tenſe and painful. The uneaſineſs moſt commonly extends in the courſe of the Abſorbent veſſels, along the internal condyle of the Humerus up to the Axilla. The Suppurative proceſs advances very ſlowly, and is attended in its progreſs with Erethiſmus, Lipothymia, delirium, and other alarming Symptoms; and there have been inſtances where this ſpecies of PARONYCHIA has proved fatal. The matter which is ſmall in quantity, is in contact with the bone, which generally is found in a carious ſtate; and ſometimes the ſuperincumbent integuments ſuffer Sphacelation.

CXLIX. As the VENEREAL Paronychia, is a complaint that is not univerſally underſtood, I ſhall deliver its hiſtory and treatment upon the preſent occaſion, although it might

might be referred to another place. This diſeaſe generally appears in the form of a ſmooth, ſoft, unreſiſting tumor, of a dark red colour, and is ſituated in the cellular membrane about the root of the nail. It is attended with an inconſiderable degree of pain in the incipient ſtate; but as Suppuration advances, the pain increaſes in ſeverity: its progreſs toward maturation is generally ſlow, and is ſeldom completed.

CL. When the ſordid Matter it contains is evacuated, the nail is generally found to be looſe, and a very foul, but exquiſitely ſenſible Ulcer is expoſed; conſiderable ſloughs of cellular membrane, &c. are frequently exfoliated, ſo that the cavity of the ſore is often very deep.

CLI.

CLI. The diſcoloured and tumid ſtate of the ſkin commonly extends along the finger, conſiderably beyond the margin of the Ulcer: in ſuch caſes, the integuments that envelope the finger become remarkably thickened, and the cellular membrane is ſo firmly condenſed as not to permit the ſkin to glide over the ſubjacent parts. The bone is not uſually found in a carious ſtate.

CLII. This ſpecies of PARONYCHIA is more frequently ſeen among the lower claſs of people when they labour under Lues Venerea, than in the higher ranks of Life. It does not appear to be connected with any particular ſtate of the diſeaſe, nor is it confined to one Sex more than to the other. In the LOCK HOSPITAL, it occurs in the propor-

tion

tion of about one Patient in five hundred.

CLIII. When I adopt the name of VENEREAL PARONYCHIA, it is not with the deſign of implying that this is a true VENEREAL Abſceſs, containing a fluid which is capable of communicating Syphilis to a ſound perſon. Its progreſs and cure, ſeem to be unconnected with the increaſed or diminiſhed action of the Venereal poiſon in the conſtitution, and to be alſo uninfluenced by the operation of Mercury. I conſider the VENEREAL diſeaſe as a REMOTE cauſe, which gives occaſion to the appearance of this, as well as of ſeveral other diſeaſes, that are widely different from its own ſpecifick nature.

CLIV. The REMOTE Cauſes of PARONYCHIA in general, have been divided

divided into EXTERNAL and INTERNAL.

1. The external :

A Puncture :---A Bruiſe :---The application of acrid ſubſtances, &c.

The nature of the internal cauſe or cauſes, I do not pretend to explain.

CLV. PROGNOSIS.--The CUTANEOUS and BENIGN Paronychia, have a favourable termination ; the worſt event to be expected, is the loſs of a part, or the whole of a Nail ; but this will frequently grow again.

CLVI. The MALIGNANT Paronychia ſeldom terminates without the loſs of ſome part of the Bone ; the laſt Phalanx of the finger is moſt commonly ſeparated. It is alſo attended with conſiderable danger to the whole Syſtem.

CLVII. The VENEREAL Paronychia generally terminates favourably, unleſs it be exaſperated by improper treatment.

SECT. II.

The MODE of TREATMENT.

CLVIII. The Surgeon is ſeldom conſulted about the Cutaneous Paronychia, until the Abſceſs be actually formed. The tumor in ſuch a ſtate muſt be opened by a Lancet, the ſeparated cuticle be removed by a pair of Sciſſars, and the ſore dreſſed with a mild Cerate.

CLIX. In the Benign and Malignant Paronychia, RESOLUTION muſt be firſt attempted,

1. By a free inciſion, carried through the integuments to the bottom of the diſeaſed part. The blood

blood may be ſuffered to flow for ſome time, and the opening may then be treated as a ſimple wound.

2. The uſe of Boiling Water, Ardent Spirits, and ſtrong Aſtringents, is of doubtful efficacy.

CLX. If Pus be actually forming, we are not to wait until the Abſceſs be completely maturated; an opening ſufficiently deep and extenſive is to be immediately made, that the matter may be evacuated as ſoon as poſſible. When the bone is found to be in a carious ſtate, it is ſeldom requiſite to expedite its ſeparation by artificial means.

CLXI. The Ulcer ought not to be dreſſed with greaſy applications. Dry Lint, or Lint moiſtened with ſome native Balſam may be applied to the bottom of the Sore; when it is in a healing ſtate, Bates's Cam-

phorated Water is a very good application.

CLXII. Peruvian Bark to ſupport the Syſtem, and Opium in ſufficient doſes to alleviate pain, are almoſt the only internal remedies that will be found neceſſary.

CLXIII. In the incipient ſtate of the VENERAL Paronychia, when no ſevere Symptoms are preſent, it is not adviſable to make uſe of any external applications; it will only require to be covered with a fine linen rag: By ſuch gentle treatment, it will often diſappear gradually without coming to SUPPURATION.

CLXIV. When Matter is formed, the Abſceſs may be permitted to rupture ſpontaneouſly. It is very common to ſee every ſpecies of dreſſing give great pain, and diſagree

gree with the ſore. An application compoſed of equal parts of Balſamum Copaiba, and Tinctura Thebaica, may ſometimes be uſed with a good effect.

CLXV. The principal object to which our attention ought to be directed is, to keep the Patient as eaſy as poſſible by the internal uſe of Opium, until the ſloughs be ſeparated, and the Ulcer becomes clean; it may then be treated as a common ſore. It will generally be proper to adminiſter the Peruvian Bark.

CLXVI. It is never adviſable to Amputate the finger, when the integuments exhibit that diſeaſed appearance deſcribed at N° 151, for the ſtump will be in danger of aſſuming an aſpect ſimilar to that of the ſore, for which the operation was performed.

CHAP.

CHAP. V.

SECT. I.

OF THE EMPYEMA PSOADICUM, OR PSOAS ABSCESS,---LUMBAR ABSCESS.

CLXVII. THE PSOAS ABSCESS, as it is termed, is ſeated in that portion of the cellular membrane, which is immediately connected with the PSOAS muſcle, and *Iliacus Internus*.

CLXVIII. This diſeaſe may very often be conſidered as a Specimen of CHRONICK Inflammation. It is ſometimes produced by a violent overſtretching, or bruiſing of the Muſcles about the Loins; it has followed

followed an imprudent application of Cold and Moiſture, as lying upon the damp ground ; any of the REMOTE cauſes of Inflammation that can be applied, may give origin to this affection ; and not uncommonly, it is connected with ſome vice in the general habit of body, as Scrofula, &c.

CLXIX. The firſt invaſion of this complaint may be attended with Symptoms reſembling a ſevere Lumbago. There will be more or leſs of difficulty in ſtanding with the body erect ; the ſeat of the pain is referred to a little below the region of the Kidney, and it often extends very low down the outſide of the thigh : theſe Symptoms are accompanied, with a painful ſenſe of contraction at the upper part of the thigh, as if the Limb were actually

ſhortened

ſhortened. The Kidney and Ureter on the affected ſide, ſuffer more or leſs from the vicinity of the diſeaſe. As this firſt order of Symptoms abate, they are ſucceeded by others of a different kind, as Rigors, languor and loſs of Appetite, Hectical complaints, waſting of the body, &c. The Inflammatory Symptoms being ſeldom ſevere, the ſuppurative proceſs takes place ſlowly; and ſeveral Months will very commonly elapſe, before the Abſceſs appears externally.

CLXX. The ſituation of the external Abſceſs, is not uniform; moſt commonly it is at ſome diſtance from the original ſeat of the diſeaſe; nor is the point at which it projects forward, to be conſidered as forming a portion of the Abſceſs. The fluctuation of the matter may there-

fore

fore be moſt palpable, about the Loins, or at the Hip, in the Groin, or near the Rectum, and ſometimes it points toward the lower part of the thigh, in the direction of the large blood-veſſels.

CLXXI. During the progreſs of Suppuration, as there is a remiſſion of the more ſevere Symptoms, the Patient often imagines that he is recovering his health; ſome degree of pain, however, and an inability of duly performing the motion of the parts, always remain. He is ſooner or later alarmed by the appearance of a ſoft tumor, which ariſes in one or more of the parts enumerated above. At the firſt, it is rarely accompanied with any diſcolouration of the integuments, or pain, unleſs it be compreſſed. When the perſon ſtands erect, the tumor

becomes more prominent ; but its contents recede, either in whole, or in part, when he aſſumes an horizontal poſture.

CLXXII. Whether the Abſceſs be opened artificially, or it be permitted to open by a ſpontaneous rupture, a very large quantity of Purulent Matter, of the denſity of good Pus, but often inclining to a cineritious colour, is generally evacuated from its cavity. The daily diſcharge of Pus alſo, greatly exceeds the quantity that might be expected from a tumor of that apparent magnitude. The ſore frequently puts on a ſcrofulous aſpect ; all the Hectical Symptoms increaſe, and the Patient is gradually deſtroyed.

CLXXIII. As the Purulent matter is ſituated behind the Peritonæum

næum, and the erect position of the body is favourable to its progression downwards, we do not often meet with instances where it is effused into the cavity of the Abdomen. If such an event should take place, the most dangerous consequences are to be apprehended.

CLXXIV. If the contents of the Abscess be included in a firm cyst, the long-continued pressure of so large a body upon the LUMBAR VERTEBRÆ, will sometimes induce a Paralysis of the lower extremities.

CLXXV. Although the larger Arteries have been known to lie surrounded with Purulent matter, for a considerable length of time, without suffering any injury, yet this is not universally the case; there have occurred many instances, where erosion has taken place, and

the perſon has been ſuddenly deſtroyed by the Hæmorrhage. The bones alſo to which purulent Matter has had free acceſs, are not unfrequently found in a cariated State.

CLXXVI. The EMPYEMA PSOADICUM, ought to be diſtinguiſhed from Nephritick complaints;---from Bulo---Hernia---Aneuryſm---Fiſtula in Ano---Hæmorrhoids---Abſceſs in the thigh joint, &c. The diſcrimination of this diſeaſe is ſometimes difficult; and it ought alſo to be obſerved, that it may be conjoined with any of theſe complaints.

SECT.

SECT. II.

The MODE of TREATMENT.

CLXXVII. This diſeaſe in the incipient ſtate, may be conſidered as a LOCAL and CHRONICK Inflammation; the treatment therefore in general, is ſimiliar to that which is appropriated to a common Inflammation; but the debilitating plan ought not to be carried to ſo great an extent.

CLXXVIII. Firſt Indication:

To obtain an Early RESOLUTION if poſſible, by

1. Topical Blood-letting.
2. Alkaliſed Purgatives.
3. Abſtinence from Animal food, and fermented Liquors.
4. Perfect quietneſs, and a Supine poſture.

5.

5. Bliſtering Plaſters applied near the part affected.

6. I have found immediate advantage from the application of a large Cauſtick near the LUMBAR VERTEBRÆ.

CLXXIX. Indication the Second: When Suppuration has actually taken place, the Diet muſt be improved and rendered cordial and nouriſhing. The Peruvian Bark, Vitriol, or Steel, may be employed with advantage. To theſe Tonick remedies it will be proper to add, a Pure Air, Gentle exerciſe, and with certain reſtrictions, Sea Bathing.

CLXXX. There have been various opinions concerning the beſt mode of treating the Abſceſs when it points externally. Some of the Older Surgeons, as HILDANUS, WISEMAN, &c. and the French Sur-

Surgeons in general, adviſe a free opening to be made, or the introduction of a Seton.

It hath been thought more adviſable by other practitioners, to permit the Abſceſs to burſt ſpontaneouſly. Several of the Modern Surgeons recommend a very ſmall aperture to be made, and the Ulcer to be treated in a very gentle manner. My own experience is in favour of the laſt mode of treatment, and I have been ſo happy as to ſee it followed by a perfect cure of the diſeaſe.

CLXXXI. Some of the older Writers forbid the uſe of Injections in the LUMBAR ABSCESS; but their reaſons ſeem to be founded upon miſtaken ideas of the true ſituation of the diſeaſe.

Solution

Solutions of Copper, Vitriol, or even tepid Sea Water may ſometimes be employed in this way, with conſiderable advantage.

CLXXXII. The inſtances of thoſe that perfectly recover from the EMPYEMA PSOADICUM are ſo few in number, when compared with thoſe to whom it proves fatal, that it will never be prudent to give a favourable Prognoſtick.

CHAP.

CHAP. VI.

SECT. I.

OF

GANGRENE and SPHACELUS.

CLXXXIII. IT hath been uſual among many of the later Writers, to enumerate GANGRENE as a third mode, in which an Inflammation frequently terminates; but although cuſtom and authority may be ſufficient to juſtify ſuch an arrangement, yet there certainly is not a neceſſary connexion between the two diſeaſes. GANGRENE does indeed ſometimes ſupervene to Inflammation, but this order is not abſolute and immutable,

for it very often originates from cauſes, which imply a ſtate of the Syſtem, that is the reverſe of Inflammation.

CLXXXIV. As a GANGRENE moſt commonly terminates in Sphacelation, there is ſome propriety in treating both of them under one head; yet the difference between a Gangrenous and mortified part is ſo very conſiderable, that the terms ought never to be employed as Synonimous ones. The diſtinctions propoſed by ſome modern Phyſicians, which are founded merely upon the parts affected, or the profundity to which the diſeaſe has penetrated, ſeem inadequate and uſeleſs. The antient Practitioners, who attended more carefully to the actual ſtate of the morbid parts, than to the quantity

tity of diſeaſe, have left us ſome excellent definitions.

CLXXXV. The human body is but a temporary fabrick which carries in its compoſition and ſtructure, the principles of diſſolution and decay. This is not only true of the entire machine, conſidered as an organized whole, but may be applied to the ſeveral conſtituent parts; ſo that whatever once poſſeſſed a vital power and action may be deprived of that quality by a variety of cauſes; and when any part has once loſt its living powers, all relation between the dead portion and the animated machine is irrecoverably deſtroyed.

CLXXXVI. The Phenomena which attend the Death of different parts of the body, are by no means ſimilar; they will be conſiderably

influenced by the organization of the part; by the previous ſtate of the Syſtem; and by the nature of the REMOTE Cauſe.

CLXXXVII. As a knowledge of the REMOTE Cauſes affords conſiderable aſſiſtance, in the forming a juſt DIAGNOSIS of GANGRENE, this will be the moſt proper time to enumerate them; the Hiſtory and Treatment of the diſeaſe will be conſequently delivered with leſs interruption.

CLXXXVIII. Among the REMOTE cauſes that have a powerful influence in producing GANGRENE, may be aſſigned,

1. The application of fevere Stimuli, to a diſeaſed, or debilitated part.

CLXXXIX. There is a certain degree of excitement, which the Nervous

Nervous Syſtem can ſupport, without inducing a ſtate that is inconſiſtent with the welfare of the body; if the ſtimulating powers act beyond a determinate point, they deſtroy ſenſibility, and induce torpor, or death. It may alſo be remarked, that if a vital moving part be ſuddenly or durably excited to a velocity and force of action, greatly beyond what its natural and inherent powers are calculated to ſuſtain, a loſs of tone in the moving fibres, debility, or even deſtruction of its vitality, muſt be the conſequence. Theſe obſervations may be fully illuſtrated, by applying them to the effects of Lightning, to intenſe Inflammation, Eryſipelas, the action of acrid ſubſtances, poiſons, fractured bones, &c. Strong Stimulants applied to Dropſical, or Paralytick Limbs,

Limbs, &c. in the production of GANGRENE.

CXC. 2. Obſtruction to the due tranſmiſſion of blood, eſpecially when there is an increaſed action in the blood-veſſels. As, in Strangulated Herniæ, Tight bandage, compreſſion of large blood-veſſels by Tumors. To which, perhaps may be added,

3. A ſudden diminution of ſenſibility, and repreſſion of action in a diſeaſed part, by the improper application of repellent remedies, as is ſometimes ſeen in Eryſipelas, &c.

CXCI. A Sphacelus may be induced, by

1. Whatever deſtroy the organization of a part, ſo that it becomes incapable of carrying on its natural functions; as in large wounds, where the moſt conſiderable blood-

veſſels

veſſels of a part are divided ; violent Contuſion, by which the contexture of a part is ſubverted, and the contents of the veſſels are either effuſed, or rendered incapable of being circulated.

2. Total obſtruction to the motion of the blood in a principal artery, as in ſome caſes of Aneuryſm, oſſification of Arteries, compreſſion from tumors, &c.

3. Certain changes induced upon the living ſolids and fluids,—by Cold,—Heat, actual and potential : And alſo from the uſe of unwholeſome food.

4. Sphacelation ſometimes appears ſuddenly, without any evident procatarctick cauſe.

CXCII. The previous ſtate of the general Syſtem, has very extenſive influence in determining the action of

of the REMOTE cauſe, to the production of GANGRENE, or SPHACELUS: *exempli gratia*, Previous Fever, Dropſy, Paralyſis, Languid action of the extreme Blood-veſſels as in Old Age, &c.

SECT. II.

THE SYMPTOMS of GANGRENE.

CXCIII. The Supervention of this diſeaſe is ſometimes marked by the appearance of Symptoms in the following order,

1. An exquiſite irritability in an inflamed part.

2. A ſenſe of burning in the part.

3. A purple, bluiſh, or livid appearance of the ſkin.

4. Subſidence of an inflammatory tumor.

5. Flac-

5. Flaccidity of the part affected.

6. Phlyctenæ, with a livid circle round their baſe.

7. Where an Ulcer exiſts, the ſurface becomes dry, and diſcoloured.

CXCIV. The TERMINATION of GANGRENE in SPHACELATION is indicated by,

1. An effuſion of the red Globules of the Blood under the Cuticle, reſembling diffuſed Petechiæ.

2. OEdema: ſometimes, Emphyſema.

3. A total ceſſation of pain in the diſeaſed part.

4. A ſenſe of great weight in the limb.

5. The affected part becomes black.

6. Cadaverous ſmell, and appearances of Putrefaction.

Theſe Phenomena are not entirely applicable to the Dry Gangrene.

CXCV. A part of the Body that is affected with GANGRENE, does not immediately loſe its ſenſibility; the fluids continue to circulate in their veſſels; and within certain limits, the part is capable of being reſtored to its former offices in the animal Economy. "A Gangrene, "therefore, ſtrictly ſpeaking, is a "mortification not actually formed, "but approaching, being the in-"termediate ſtate betwixt the "height of Inflammation and Spha-"celus." (*See Kirkland on Gangrene and Sphacelus.* Alſo *Chirurgia Franciſci Peccettii, &c.*) Sphacelation implies, the total loſs of life in the part; an abſolute derangement of its ſtructure; the abolition of all its functions; and an utter

utter incapacity of its being reſtored to any ſervice in the Animal Economy.

CXCVI. It is obvious, that the regular progreſſion of an Inflammation into Gangrene and Sphacelus, can be diſtinctly marked in external diſeaſes alone. But the approach of a Mortification in any part, is not neceſſarily preceded by the clear and evident Characters of Gangrene. A ſmall portion of the body may ſuffer ſudden death, as well as the whole Syſtem.

CXCVII. A ſudden attack of ſevere pain in a part that is apparently ſound, frequently indicates the approach, or accompanies the firſt invaſion of Sphacelus. Sometimes there is a ſmall black ſpot upon the part affected. The progreſs and extent of the diſeaſe in

ſuch caſes, is often marked by an OEdema, or an Emphyſematous inflation of the *tela celluloſa*.

CXCVIII. A Mortification may frequently be regarded as an affection entirely local, which depends upon an external cauſe for its appearance ; in ſuch caſes, the effects do not extend beyond the diſeaſed parts.

CXCIX. More commonly, Sphacelus is accompanied with a general and dangerous affection of the whole Syſtem. This ſtate is indicated, By a remarkable deviation of the Patient's countenance from its natural and healthy appearance ; there is often a peculiar wildneſs of aſpect ; anxiety, vomiting, great depreſſion of ſtrength, a frequent, ſoft, and ſometimes intermitting pulſe, and more or leſs of delirium.

When

When a ſevere Inflammation of a tenſe part has proceeded rapidly to Gangrene and Sphacelus, the brain is affected at an early period, and the delirium is often furious; but in a languid Syſtem, where Sphacelation has approached more gradually, the delirium may be moderate, interrupted, and perhaps does not appear, till near the concluſion of the diſeaſe; and ſometimes the patient dies comatoſe.

CC. In old people, a Gangrene and Sphacelus will frequently ſucceed to the ſlighteſt accidents. Under theſe circumſtances, the diſeaſe will ſometimes ſeem to be almoſt ſtationary, and continue for ſeveral months without producing extenſive miſchief; on the other hand, ſo variable and uncertain will be the progreſs, that the termination

ſhall

ſhall follow a few days after the attack of the diſeaſe.

CCI. Many valuable writers both Antient and Modern, have divided Gangrene into different Species, and their diſtinctions have been founded upon the various REMOTE Cauſes that produce this diſeaſe; and as the progreſs of Mortification will very much depend upon the perpetual operation of the REMOTE cauſe, many practical advantages may attend ſuch a mode of diviſion. It is probable however, that, let the REMOTE cauſe be what it may, the form of the diſeaſe is an uniform and general one; and if it be, the principles that we have delivered are capable of application to every Species of the diſeaſe.

CCII. As a Sphacelated part no longer poſſeſſes a vital union with the

the general Syſtem, it may be regarded as an extraneous ſubſtance, the removal of which is generally eſſential to the comfort and welfare of the living parts.

CCIII. If the Mortified maſs be ſo ſituated that it will be expoſed to the effects of warmth and moiſture, putrefaction will take place, as in dead Animal matter ſeparated from the body. Sometimes a Sphacelated Member becomes dry and incorruptible, as if it had been defended from putrefaction by Artificial means.---*La Gangrene Séche.*

CCIV. The ſeparation of the dead part from the living is a natural proceſs, and is explicable upon known phyſical principles; and it generally takes place in the following order:--- The living parts that ſurround the mortification firſt appear to be lightly

lightly inflamed, and they ſink below the level of the Sphacelated edge; the proceſs of Suppuration ſoon commences, a ſmall quantity of matter iſſues from the line of ſeparation, and as exfoliation proceeds, the matter is evacuated in greater quantity and aſſumes the form of good Pus: while this Proceſs goes on, the diſtance between the living and the dead part becomes more evident, until they ceaſe to cohere.

CCV. The Inflammation that immediately precedes the ſeparation of the dead part, and which is eſſential to the completion of that proceſs, ſeems principally to depend upon the preſence of the Eſchar; this dead ſubſtance ſtimulates the ſurrounding living ſolids as an extraneous body, and thus produces

a determination of blood to that part; the contiguous ſurface conſequently ſuppurates, and the matter that is found between the receding parts is principally furniſhed by the living Veſſels.

CCVI. The period of exfoliation is conſiderably influenced by the ſituation and ſtructure of the affected part, and by the general ſtate of the Conſtitution.

CCVII. Bones are ſuſceptible of Inflammation and Suppuration, as well as the ſofter parts of the body; they may likewiſe be deprived of their vitality by diſeaſe. When a bone, or a portion of bone is in this ſtate, it is ſaid to be CARIOUS.

CCVIII. As there exiſts a conſiderable difference between the ſenſibility, ſtructure, and functions of Bones, and thoſe of the ſoft parts,

ſo the Phenomena of their ſeveral diſeaſes are not exactly ſimilar: A general and groſs analogy obtains, but it is not ſufficiently preciſe to warrant an equal application of all the preceding obſervations. It is highly probable however, that the Deſquamation of Bone is effected by a proceſs, analogous to that of the exfoliation of the ſofter parts.

CCIX. Various explanations have been offered of the means by which the dead Animal Solid is ſeparated from the living parts. It will be ſufficient for the preſent purpoſe, to take notice of the three following, viz.

1. That the efficient cauſe is a Mechanical one, the force with which the new granulations of fleſh germinate, being ſuppoſed ſufficient

to

to puſh off the Mortified Maſs. *Platner. Tenon*, &c.

2. A fermentation and diſſolution of that part of the Eſchar, or Carious bone, which forms the line of adheſion.

3. That the living ſolids at the line of Union, are removed by the mouths of Abſorbent veſſels.

CCX. The aſſignment of the firſt enumerated cauſe muſt have been the reſult of very groſs obſervation; it is at once inadequate for the purpoſe, and the action aſſigned to the granulations is quite inconceivable. It may account for the extruſion of a looſe Eſchar, but we are not at all aſſiſted by it in conceiving of the mode by which ſeparation is effected in the middle of a ſolid fibre.

CCXI. There is conſiderable ingenuity diſplayed, in referring the proceſs of exfoliation, to the Mordicant powers of Abſorbent orifices; but this opinion is not wholly free from difficulties.

a. If the dead part be ſeparated from the living by an Abſorption of the line of union; as this line is always of equal diameter, and according to the ſuppoſition is ſtudded with mouths of Abſorbents, the time in which different portions of dead matter exfoliate, ought not to bear any proportion to the depth, extent, nor ſeat of the diſeaſe; but this is contrary to daily experience.

b. The dead bone acting as an extraneous ſubſtance, muſt ſtimulate the Abſorbents that are at the point of contact to action; but if theſe veſſels abſorb the line of Union, then

then it will follow, that they Abſorb themſelves.

c. As there cannot be any given portion of a Bone, that may not become carious and exfoliate, ſo there cannot be any point aſſigned, that may not be abſorbed; and if any given point may be abſorbed, then every given point may be abſorbed: But if the ſmalleſt aſſignable line, cannot be drawn through any part of a bone, which may not be abſorbed, then it will follow, that no point can be given, however ſmall, at which it may not be affirmed that the orifices of Abſorbent veſſels exiſt: But if theſe *orifices* exiſt in every poſſible point, where are their trunks? Where are the other conſtituent parts of the bone?

CCXII. It is probable, that in the ſeparation of the dead portion of

of the Animal fibre from the living, the proceſs that terminates in a ſolution of continuity firſt begins in the Eſchar, or in the cariated portion of bone, for

1. Warmth and Moiſture expedite the proceſs of exfoliation ; and at the line of Union, theſe circumſtances are generally preſent.

2. A fetid SANIES, or SORDES, is generally to be found about the line of ſeparation.

3. When bones of a ſpongy texture become carious, there is not always a regular deſquamation, but the dead part is evacuated in fragments along with the diſcharge, as if the bone had ſuffered comminution.

4. The preſence of putrefaction is very evident, and the effects of that proceſs in deſtroying the cohe-

ſion

ſion of Animal fibres, is too generally known, to require inſiſting upon; and whatever operation any other power may be ſuppoſed to have in perfecting the ſeparation,* this appears to be a very principal Agent.

CCXIII. Mortification ſhould be diſtinguiſhed from Ecchymoſis, and large extravaſations of Bloody fluids into the Cellular Membrane. But the DIAGNOSIS and PROGNOSIS will be more conveniently delivered, when we treat on particular diſeaſes.

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* The Suppuration of the living ſurface immediately in contact with the dead part, (N° 205) may probably expedite the proceſs of Exfoliation.

SECT.

SECT. II.

THE TREATMENT of GANGRENE.

CCXIV. The Mode of treating a GANGRENE, may with propriety be divided into two diſtinct parts,

1. The internal Remedies, &c. which are indicated by the State of the General Syſtem.

2. The Local applications.

CCXV. Indication the Firſt:

To diminiſh increaſed vaſcular action, by a moderate and judicious uſe of the Remedies recommended at N° 80, 81, 85, 88.

It is here ſuppoſed, that intenſe Inflammation is the Cauſe, or the Antecedent of the Gangrenous ſymptoms. The evacuations however, muſt

muſt be made with great circumſpection; for an erroneous idea of the nature of the diſeaſe, or the ſtate of the general Syſtem, may be attended with fatal conſequences to the patient.

Indication the Second:

To diminiſh pain and irritability, by a very liberal uſe of Opium.

Indication the third:

To prevent its progreſs into Sphacelus, by ſupporting the Tone and Vigour of the Syſtem, with

Peruvian Bark, Vitriol, Mineral Acids, Port Wine, Madeira, Porter or Ale, Brandy, Æther, &c.

SECT. III.

The LOCAL TREATMENT.

CCXVI. Indication the Firſt:

To remove the REMOTE Cauſes if poſſible, as Tumor, Ligature,

Acrimonious Subſtances, &c. and to correct or deſtroy any particular virus by its proper remedy.

Indication the Second :

To promote the equable circulation in the part, and to obviate the effects of diſtention, by warm, ſoft, and lenient applications frequently repeated : As Cataplaſms made with Bread and Milk :—Lineſeed, Mixtures of Wheat Flour and Lineſeed, or Fenugreek, or Camomile Flowers powdered, &c.

When Cold is the REMOTE cauſe of this diſeaſe, warm and emollient applications are to be avoided, and in their ſtead, ſubſtitute friction with Snow, immerſion in Cold Water, &c.

SECT.

SECT. IV.

THE TREATMENT of SPHACELUS.

CCXVII. When the Symptoms enumerated at N° 199, begin to appear, no evacuations ought to be promoted, except ſuch as are natural to the body in a ſtate of health. The firſt Indication that preſents itſelf is to check the progreſs of the diſeaſe, by large doſes of Peruvian Bark joined with Opium, exhibited in as quick ſucceſſion as the Stomach will bear. To which may be added, The ſtrongeſt Wines and other fermented liquors, Brandy, Æther, &c.

Indication the Second:

To adminiſter Opium when pain renders its uſe neceſſary.

SECT. V.

The LOCAL TREATMENT of SPHACELUS.

CCXVIII. Where a Mortification ariſes from compreſſion, or any other external REMOTE cauſe, and the general health ſeems to be wholly unaffected, the removal of the REMOTE cauſe will be generally ſucceeded by a termination of the diſeaſe. In ſuch caſes, the Mortified part requires no more attention than what is uſually paid to an Eſchar made by a Cauſtick. But a SPHACELUS is not neceſſarily local, becauſe it originated from an external cauſe; the judgement muſt here be determined by the conſideration of ſeveral other circumſtances.

CCXIX.

CCXIX. As the Sphacelated part is dead, no benefit can be derived to it from any external applications whatever; the living parts that ſurround it are the only proper objects of attention.

CCXX. The external remedies that have been principally recommended, are

a. Scarifications of the Part.

b. Applications, actually, or potentially warm.

c. Antiſeptick Cataplaſms, &c.

CCXXI. The chief advantages to be derived from ſcarifying a Mortified part, ſeem to be, an evacuation of putrid Sanies, or confined Air, and the affording an opportunity of applying proper dreſſings to the living parts that are beneath the Eſchar.

CCXXII. The ſurrounding parts may be invigorated, by the application of Alcohol, Oil of Turpentine, Poultices made with Oatmeal and Stale Beer, to which may be added, Cataplaſms of *Theriaca Londinenſis*, &c. Lixivial applications are wholly improper, unleſs we mean to do no more than waſh away the offenſive matter from the diſeaſed part. The actual Cautery is very ſeldom uſed: And it may be doubted how far the vapour of hot water can be applied to a Sphacelated part, with perfect propriety.

CCXXIII. Antiſeptick applications, as the Powder of Peruvian Bark made into a Cataplaſm:—Mineral, or Vegetable Acids diluted:---Mephitick Gas:---Carrot Poultice:--the fermenting Cataplaſm, &c. may be uſed with advantage, as they correct

rect the fetor, and do no injury to the living parts. I have ſeen the moſt pleaſing effects to follow the uſe of the Fermenting Poultice, and alſo the application of Cicuta, to Gangrenous Ulcers.

CCXXIV. It is ſometimes neceſſary to remove the mortified part by a Chirurgical Operation; but exciſion ought not to be attempted, until the ſeparation of the living part from the dead be in ſome forwardneſs. This rule may be admitted as being generally true, but it is not abſolutely without exception. But this ſubject will be proſecuted with more propriety under the head of Amputation.

CCXXV. A Sphacelated Limb is ſometimes ſeparated from the body by a natural proceſs, and the cure will be completed without any aſſiſtance from Art.

CHAP.

CHAP. VII.

SECT. I.

OF THE ANTHRAX, or CARBUNCLE.

CCXXVI. THE ANTHRAX is a deeply-ſeated, hard, immoveable, diſtinctly circumſcribed tumor, attended with an intenſely painful ſenſe of burning in the part, and conſiderable diſcolouration of the ſkin.

CCXXVII. This diſeaſe is rarely IDIOPATHICK; it is aſſigned by writers, as a very common appearance in Peſtilential diſeaſes:---and when there is no reaſon to ſuſpect the plague

plague as a cauſe, that ſtate of the Syſtem is commonly preſent which is characteriſtick of Putrid fever.

CCXXVIII. The CARBUNCLE is often ſudden in its appearance, the tumor is very little elevated above the ſurface of the ſkin; about the centre it is of a duſky red colour, but is much paler, and often variegated toward the circumference. Small, prurient veſications or puſtules appear upon its ſurface, which, when they are ruptured evacuate a dark coloured Sanies, and diſcover a ſphacelated baſe. The commencement of the diſeaſe is ſometimes accompanied with Symptoms reſembling General Inflammation; but moſt commonly, it is attended with Rigors, ſickneſs, great reſtleſſneſs and depreſſion of ſtrength, faintings, delirium, &c. A Miliary Erup-

tion, or even Petechiæ, are ſometimes found diſperſed in different parts of the body.

CCXXIX. It hath been uſual to divide the ANTHRAX into two Species, the BENIGN and the MALIGNANT: this diſtinction however, ſeems to be merely applicable to the violence and extent of the diſeaſe, and implies no real diverſity in the Species.

CCXXX. The Cellular membrane is the principal ſeat of the CARBUNCLE; and as in Gangrene and Sphacelus, the extent of its ravages cannot always be known by the appearance of the ſuperincumbent integuments. However large the ſurface may be that is occupied by this diſeaſe, it is generally deſtroyed and rendered totally unfit for

for performing its natural offices in the Animal Economy.

CCXXXI. The ANTHRAX never evacuates Laudable Pus ; in general, the affected part ſuffers complete Sphacelation : but if the diſeaſe be leſs Malignant, nothing but an offenſive Ichor or Sanies accompanies the exfoliation of the putrid ſloughs.

CCXXXII. Sometimes a Carbuncle is ſolitary in its appearance, and is of a ſurpriſing magnitude ; but not unfrequently, like Furunculi, they appear in different parts of the body at the ſame time. When the Anthrax is a Symptom of the Plague, the peſtilential Bubo frequently accompanies its appearance.

CCXXXIII. The Anthrax muſt be diſtinguiſhed from Phygethlon,

Gangrenous Abſceſſes, and Phlegmonous tumors in general.

CCXXXIV. The PROGNOSIS of the Carbuncle, will be conſiderably regulated by its Magnitude:---Situation:---or the numbers that invade the body at the ſame time. The ſtate of the Patient's health will greatly influence the Prognoſtick.

SECT. II.

THE TREATMENT of ANTHRAX.

CCXXXV. From the preceding hiſtory of CARBUNCLE, it is evidently a diſeaſe ſo very analogous to Gangrene and Sphacelus, that the treatment which was appropriated to theſe morbid affections, is perfectly applicable in the preſent inſtance.

ſtance. The Extirpation of the Tumor, or the Application of Cauteries and Cauſtick, are modes of practice juſtly exploded.*

CCXXXVI. It ought to be conſtantly remembered, that no external applications are to be depended upon alone. The vigorous and decided uſe of thoſe remedies that operate upon the general Syſtem, is of the greateſt importance.

CCXXXVII. Where conſiderable ſinuſſes remain after the exfoliation of the Sphacelated part, Injections made with Solutions of Vitriol, Copper, Lunar Cauſtick, &c. will be ſometimes ſerviceable, in promoting the ſeparation of the dead portions of Cellular Membrane, &c.

* *M. Pouteau,* who is extremely fond of the actual Cautery, recommends its application in the ANTHRAX. *Oeuvres Poſthumes.*

CHAP.

CHAP. VIII.

SECT. I.

OF THE PERNIO, or CHILBLAIN.

CCXXXVIII. THE PERNIO is a painful tumefaction, and ſometimes Ulceration of an extreme part, in conſequence of expoſure to a great degree of cold.

CCXXXIX. This is a diſeaſe to which the inhabitants of Temperate Climates are more peculiarly liable; its production ſeems to depend rather upon the ſucceſſive alternations of Warmth and Coldneſs, than to be

be the effect of the long-continued action of ſevere Cold: in the Frigid Zone, congelation, and the total death of the part, is almoſt always the conſequence of incautious expoſure to the Atmoſphere, in the more inclement ſeaſons.

CCXL. Although the Chilblain is a very common complaint, and is not generally the object of Chirurgical treatment, yet it ought not to be overlooked as a diſeaſe of no importance, for it ſometimes proves deſtructive to the part that is affected; it is always ſlow in its progreſs toward amendment; and thoſe that have once been ſufferers, are ſubject to have a return of the diſeaſe in every ſucceeding Winter.

CCXLI. In our attempts to inveſtigate the effects of the application of cold upon the human body, in the

the production of this, or any other Morbid alteration, we cannot reaſon from its known action upon inanimate ſubſtances, for the Phenomena are not applicable, except in ſome very groſs inſtances. No particular alterations are produced in dead Matter by expoſure to a cold Atmoſphere, &c. until it be frozen; but the congelation of a living part is uſually attended with the loſs of its vitality, and it then ceaſes to fall under our conſideration as a proper ſubject of diſeaſe.

CCXLII. The effects of cold upon the living body are more ſenſible and intenſe, in proportion as the tranſition is more ſudden, from a very high to a very low degree of temperature. But even in the coldeſt ſeaſons of Northern climates, a ſudden increaſe of its ſeverity, eſpecially

cially if there be much Wind, will occaſion internal, or external Mortifications, and not unfrequently ſudden Death. *See Boyle's Hiſtory of Cold*, &c.

CCXLIII. The natural ſtandard of heat generally found in the living body is about 98° of *Fahrenheit*'s Thermometer, and this degree can be ſupported when the ſurrounding Atmoſphere is in very different ſtates of temperature, by the original and inherent powers of the Syſtem. The application of a cold atmoſphere, &c. to the living body, has not an unreſtrained power of reducing it to its own ſtate of temperature; for as long as the vital powers are vigorous and active, it can ſubſtract little more than the exceſs of heat that may be preſent above the natural ſtandard. But

where the cold is exceſſive, and its application is long-continued, a morbid alteration will be induced in the ſenſibility and motion of the part, and conſequently there muſt be an unnatural reduction of the ſtate of Animal heat.

CCXLIV. Thoſe parts of the body that are naturally poſſeſſed of little or no ſenſibility, and where there is a languid circulation of blood, or perhaps none at all, may be frozen, and undergo the ſame changes that take place in lifeleſs matter, while the Syſtem in general ſhall ſuffer little or no injury: *exempli gratia*, the cuticle, hair, and extremities of the nails.

CCXLV. The proper and direct effects of cold upon ſolid inanimate bodies, are dryneſs and contraction; but it is ſaid, that fluids ſuffer expan ſion

panſion at the inſtant of Congelation. When it is conſidered that the experiments which ſeem to prove this, were made with nearly incompreſſible fluids incloſed in a hollow veſſel, and that the ſides of the veſſel would contract with great force upon an inelaſtick ſubſtance; when it is alſo taken into conſideration, that high degrees of cold evolve the air naturally combined with water, and thus augment its bulk, and diminiſh Specifick gravity; when the different degrees of ſpecifick gravity, of different maſſes of Ice, and of the ſame portion at different periods, the effects of the Air-pump, &c. are added to the account, and alſo the change that takes place in its figure by the act of congelation, perhaps our general poſition, that cold by

its proper effects, contracts all bodies, may be capable of application to fluids as well as to ſolids.

CCXLVI. The proper and direct effects of cold upon living bodies, are, a diminution of inſenſible perſpiration, a dryneſs, corrugation, or fiſſured ſtate of the cuticle, and ſometimes of the ſkin; The ſenſibility is more or leſs impaired; there is a languid circulation of the blood eſpecially in the ſmaller veſſels; theſe are ſucceeded by a conſiderable diminution of heat upon the ſurface of the body; reſpiration is often painful or laborious; and there is a general diminution of the Tonick action of the moving fibres, accompanied with actual debility.

CCLXVII. As the human body is an organized whole, where the combined parts exert a perpetual

and

and reciprocal influence upon each other, a powerful application is never followed by a ſolitary effect. Animal heat depends greatly upon the ſtate of the Brain, and the ſenſibility of the Nerves, and *vice verſa*; both theſe conditions, are intimately connected with the due tranſmiſſion of blood; and the tonick ſtate of the moving fibres depends upon the joint operation of all theſe, and perhaps of other cauſes. See Obſervations on ANIMAL HEAT in the *London Medical Journal*, Vol. 7. p. 169.

CCXLVIII. When the ſenſibility, tone, &c. N° 246, of any portion of the body is greatly impaired, if it were to be ſtill longer expoſed to the action of intenſe cold, a livor, rigidity, brittleneſs, and death of the part, would be the conſequence.

CCXLIX.

CCXLIX. The firmneſs that is produced in a body by congelation, ought to be diſtinguiſhed from that ſtate of contraction in living Muſcular fibres, that is called Tone: nor ought it to be aſſumed as certain, that cold, while it contracts bodies, alſo augments the attraction of coheſion between the particles of Matter. But whatever may be its effects upon dead ſubſtances, it was long ago obſerved by Lord BACON, that "Cold has a *relaxing* effect "upon the living body."

CCL. In robuſt and athletick conſtitutions, where intenſe and long-continued refrigeration can be ſuſtained without injury, from the influence of habit, or the effect of exerciſe, a cold atmoſphere may be ſaid to increaſe the general ſtrength of the Syſtem. Upon the ſame princi-

principle, tranſient changes of temperature, (as Cold-bathing, &c.) repeated within certain limits, will have a tendency to invigorate the feeble and debilitated; but theſe ſecondary effects of cold which are the conſequence of re-action, no more prove it to be Tonick in its own nature, than the debility that ſucceeds inebriation demonſtrates the primary properties of Alcohol to be relaxing.

CCLI. That degree of heat which is moſt grateful to the healthy ſtate of ſenſation, is about the Medium point, between the heat of human blood, and the Freezing point. But when a part is conſiderably refrigerated, if a degree of heat not greater than would be pleaſant to a healthy body be ſuddenly applied, the effect will be as fatal as abſolute conge-

congelation. It muſt be very obvious however, that the manner in which death is occaſioned by theſe two oppoſite cauſes, is very diverſe: in the latter inſtance, vitality is deſtroyed, by arreſting all motion; in the former, by the violent incitation of the moving fibres of a part to a velocity and force of action, which their debility renders them unable to perform.

CCLII. The general principles, by which many of the effects of actual cold are produced by ſubſtances that are potentially cold, may perhaps receive ſome elucidation from an application of the preceding obſervations.

CCLIII. The firſt Symptoms of the PERNIO, are a paleneſs of the refrigerated part, which is quickly ſucceeded by more or leſs of redneſs,

neſs, and a troubleſome pruritus, or ſometimes pain ; the ſkin gradually acquires a purple hue ; the cuticle ſeparates, and this ſeparation is often preceded by a ſerous effuſion between that and the Cutis ; beneath the cuticle, there appears a painful ill-conditioned Ulcer, irregular in its figure, and difficult of cure.

CCLIV. The foregoing account may be conſidered as a very general deſcription of the CHILBLAIN ; but as there is ſome variety in the appearance and progreſs of the diſeaſe, it may be proper to divide them into two Species :

The SIMPLE, and the ULCERATED PERNIO.

CCLV. The SIMPLE PERNIO is characterized by redneſs of the part, accompanied with a pruritus and ſenſe of tingling, eſpecially on be-

ing ſuddenly expoſed to heat; more or leſs of OEdema poſſeſſes the ſurrounding parts, and very frequently there is a livid appearance which extends to a conſiderable diſtance. This Species may remain in its ſimple ſtate during the whole Winter, and gradually diſappear as the Summer advances.

CCLVI. The ULCERATED PERNIO is frequently preceded by the ſimple ſpecies, to which, there ſupervenes a Veſication, or ſimple ſeparation of the Cuticle: below this, there appears a painful, foul, irregular Ulcer, which by neglect will increaſe to a conſiderable magnitude: ſometimes the Ulceration penetrates as low as the tendons, or even expoſes the ſurface of the bone. In a ſevere Winter, there are generally ſeveral inſtances of a total

Sphace-

Sphacelation of one, or both the extremities, from the application of cold. A ſudden and imprudent application of heat to a benumbed limb, may prove equally deſtructive of the life of the part.

CCLVII. A long-continued and partial expoſure to a cold not much below the freezing point, will ſometimes produce the dry Gangrene; eſpecially if there be a previous ſtate of debility in the Syſtem.

CCLVIII. It is worthy of obſervation, that the Simple Chilblains do not ſo often appear during the continuance of a froſt, as during the thaw that ſucceeds it; and it is a well known fact, that frequent alternations of heat and cold, within ſhort intervals, have a very pernicious effect upon parts that are already debilitated.

CCLIX. The Ulcers that appear in conſequence of the application of cold, very much reſemble thoſe that are ſeen on the lower extremities of Cachectick patients, and of thoſe in general, where the Circulation of the blood in the extreme veſſels is remarkably languid.

SECT. IV.

The TREATMENT of CHILBLAINS.

CCLX. As it is eaſier to prevent the acceſſion of Chilblains, than to cure them, our attention ought firſt of all to be directed to the means of prevention.

The Methods proper to be employed for this purpoſe, are,

1. To defend the parts carefully from the action of extreme cold, by warm cloathing.

2. To

2. To avoid ſudden and great tranſitions from cold to heat.

3. To give tone and action to the veſſels by exerciſe or friction.

4. To harden the Cuticle, and promote the circulation of blood in the parts moſt expoſed to the effects of cold, by gentle Stimulants, as Alcohol:---Spirit of Turpentine:---Warm Plaſters, hot Sea Water, &c.

CCLXI. The Simple Pernio will generally diſappear as ſoon as the weather becomes permanently mild; little more is requiſite than to rub the part frequently with a warm Spirituous Embrocation, and to apply a plaſter of Simple Diachylon. Expoſure to a very ſtrong heat has been recommended, and will prove ſucceſsful; but it is too painful a mode to be generally adopted.

CCLXII.

CCLXII. The Ulcerated Chilblain may be treated as a common Ulcer, varying the applications according to the ſtate of the affected part.

CCLXIII. The mode of treating a Gangrene that is the conſequence of expoſure to cold, ought to be different from that which was recommended, at N° 215,—216. We are adviſed, firſt to attempt a reſtoration of the part, by chafing it with Ice or Snow, or plunging it into Cold Water; and cautiouſly to avoid introducing a ſudden change in the temperature of the part. Cordial remedies are to be exhibited internally.

But when a Part is completely Sphacelated by Cold, the mode of treatment does not differ from that which was recommended in the Chapter on Gangrene and Sphacelus.

CHAP.

CHAP. IX.

SECT. I.

AMBUSTIONES.

OF

BURNS and SCALDS.

CCLXIV. A BURN, is a ſolution of continuity from the application of fire.

CCLXV. In our attempts to inveſtigate the operations of various active powers upon the human body, we are not to form an eſtimate of their proper and abſolute effects, by means of analogical reaſonings founded upon the changes they produce on inanimated matter; their

their action upon the living fibres, within certain limits, is relative, and is connected with the present, and immediately preceding state of the System; for every application that does not immediately destroy the vitality of the part to which it is applied, scarcely extends its primary action beyond the organs of sensation. These observations are eminently true when applied to the operation of heat and cold, communicated within a certain degree to the living System.

CCLXVI. It is a well known fact that a living healthy animal is endowed with an inherent power of generating, and supporting a certain degree of heat, in a great measure independently of the state of Temperature of surrounding bodies. And when the body is placed within

in the ſphere of action of maſſes of matter, conſiderably heated beyond its ordinary ſtandard, there will be an acceſſion of heat exceeding the natural quantity; but in proportion to the adventitious heat that is communicated, the inherent powers of the Syſtem will be leſs vigorouſly exerciſed in the generation of animal heat; hence there ought to be a diſtinction conſtantly made, between innate, and ſupervenient heat.

CCLXVII. When heat is conſidered with relation to the ſenſes of an Animal, it may be regarded as a very powerful Stimulant inciting the moving powers of the living fibres to action; but when it is viewed with reference to its abſolute effects on matter in general, it will appear to be a very active and potent

Chymical agent, capable of deſtroying the contexture, and ſeparating the component parts of bodies. The effects therefore reſulting from the application of heated ſubſtances to the human body, will be different, according as their action chiefly terminates on the organs of ſenſation, or as they deſtroy the vitality, and derange the organization of the Machine.

CCLXVIII. The effects produced by high degrees of actual heat, and by Cauſtick ſubſtances applied to the living body, are very analogous; and the ſenſations excited by actual and potential heat are ſo extremely ſimilar, that it perhaps merits inquiry how far their effects depend upon a principle common to both.

CCLXIX.

CCLXIX. If a ſubſtance poſſeſſed of above 120° of heat be applied to the living body, it will accelerate the motions of the blood veſſels of that part, increaſe the contractility of their parietes, produce redneſs, and augment ſenſibility. Increaſe this degree of heat to 213°, and there will follow a ſerous effuſion under the Cuticle; and a ſtill greater acceſſion of heat will coagulate the fluids and ſolids, deprive the part of its vitality, and be attended with other conſequences of Combuſtion, more or leſs extenſive, according to the intenſity of the heat, and the duration of its application.

CCLXX. As the quantity of heat which different ſubſtances are capable of receiving, and the readineſs with which they tranſmit it, is very various; ſo the effects that reſult

from the application of heated vapours, and ardent Metals are very diſſimilar. If an intenſely heated metallick ſubſtance, &c. be ſuddenly applied, the burning effects will be more extenſively injurious, but the painful ſenſation not ſo ſevere, as that which immediately follows the application of boiling Water. And when heat is communicated in a gradual manner, very conſiderable medical effects may be produced; for the pain occaſioned by a light ſubſtance in the ſtate of actual combuſtion, is by no means inſupportable.

CCLXXI. Heat produces more or leſs of an expanſive motion in all dead matter; whereas, ſuch a degree as is conſiſtent with life and health, occaſions a contraction and increaſe of tone in the living fibre.

But

But we are not to confound the expanſion and condenſation of inanimate ſubſtances, with the contraction and relaxation of the veſſels, &c. of a living Animal: the former effects are in proportion to the degree of heat that is applied; the latter are not in the ratio of its actual temperature; for the Thermometer may demonſtrate the Animal heat to be uniform in Winter, and in Summer, while the ſtate of Tonick contraction ſhall be widely diſſimilar.*

* A greater attention ſeems to have been paid to the *Temperature* of the Atmoſphere in different Climates, than to the Denſity of the Air; but this laſt circumſtance ought not to be overlooked, for daily experience demonſtrates the great and important changes that are produced in the Tonick ſtate of the Syſtem, by variations in the degree of Atmoſpherick preſſure.

CCLXXII.

CCLXXII. If a living Animal be confined in a degree of heat a little below that which would produce coagulation, altho' the primary effect would be a contraction of the living fibre, yet by ſupporting a violent and unnatural degree of action in the moving parts, the powers of the Syſtem would be gradually exhauſted. And it is no more extraordinary that the application of different degrees of heat ſhould be attended with varying effects, than that the exhibition of different doſes of the ſame medicine, ſhould be followed by very unequable operations.

CCLXXIII. In judging of the Morbid effects and probable conſequences of fire when applied to the living body, it is neceſſary to enquire into the degree of heat that

was

was brought into contact; the duration of its application; and the ſituation of the injured part: *exempli gratia*, a Burn upon the head is more dangerous than upon an extremity; and even the application of a ſtrong Cauſtick to the ſcalp demands circumſpection.—A conſiderable portion of the integuments may be deſtroyed, ſo as to produce an Ulcer that will be cicatrized with difficulty.---The ſituation of the injury may be ſuch, as to be followed by inconvenient adheſions, contractions, or great deformity.---The ſubject of the accident, may poſſeſs a habit of body in which Gangrene and Sphacelus readily ſupervene.---The Age of the patient is alſo a circumſtance of moment, as extenſive Burns in old people, and

in

in Children, are extremely dangerous.

CCLXXIV. Burns may be divided into

The SUPERFICIAL,
The ULCERATED,
and the
CARBUNCULOUS.

In the SUPERFICIAL Burn, the connexion between the *Epidermis* and *Cutis* is generally deſtroyed, but there is no ſerous effuſion, nor does the injured Cuticle ſeparate until a new one is nearly formed beneath it. This is attended with moderate pain, and no danger, except the injury be very extenſive.

The ULCERATED Burn is accompanied with effuſion under the Cuticle, and very commonly the *Cutis* is conſiderably injured, ſo that a deep and foul Ulcer is formed. The heat

heat of Boiling Water may produce theſe effects.

In the CARBUNCULOUS Burn, the whole organization of the injured part is deſtroyed, and a perfect Eſchar, or dead cruſt is formed, the profundity and diameter of which will depend upon the degree of heat that was applied, and the duration of its application. Ignited or melted metals, burning Coals, boiling Oil, &c. will produce theſe effects.

CCLXXV. The danger to be apprehended from a Burn or Scald, cannot always be eſtimated from its profundity, or Magnitude; for as ſuperficial burns are now and then extremely painful, ſo a very ſlight injury from fire upon a lower extremity, ſometimes terminates in Gangrene and death.

CCLXXVI. The ſtate of a part that is ſlightly burnt, and in which the Ulceration is not profound, very often reſembles that which is preſent in Eryſipelas; but an extenſive burn, may be accompanied with all the Symptoms attendant on general Inflammation.

CCLXXVII. Heated vapour, or boiling water, more frequently produce Ulceration when they paſs to the body through the cloathes, than when they are immediately applied to the naked ſurface.

SECT. II.

The TREATMENT of BURNS and SCALDS.

CCXXVIII. The firſt Indication: To obviate the effects of Inflammation, by employing the remedies recommended in the firſt Chapter.

CCLXXIX.

CCLXXIX. Indication the Second:

In the SUPERFICIAL Burn, to prevent if poſſible a haſty ſeparation of the Cuticle, by the application of Spirit of Wine, Vinegar, the heat of a moderate Fire, Cold Water, Preparations of Lead, &c.

CCLXXX. In the ULCERATED Burn, to apply Oil, Saponaceous Lotions:---Preparations of Lead:---Cataplaſms of White Bread and Milk with Oil:---Lineſeed Poultice, &c.

To dreſs the Ulcer, after the Inflammation is ſubdued with Mild digeſtives. When it heals with difficulty, the *Ungt. Baſil. Nigr.* may often be uſed with advantage.

CCLXXXI Indication the third:

The effects of Pain are to be obviated by the uſe of Opium; and if a conſiderable portion of the integu-

ments be removed, to Support the ſtrength, by Peruvian Bark, Wine, &c. and the Tonick remedies formerly recommended.

CCLXXXII. The Treatment of the CARBUNCULOUS Burn muſt be conducted according to the directions given in the Chapters on Grangrene and Anthrax.

CCLXXXIII. Indication the fourth:

To prevent as much as poſſible, contractions, unnatural adheſions, and great deformity, by Mechanical means properly adapted to the ſituation of the part affected.

CHAP.

CHAP. X.

SECT. I.

OF THE ERYSIPELAS.

CCLXXXIV. MEDICAL and Chirurgical writers have generally claſſed ERYSIPELAS under the head of Inflammation, and the principal difference between this affection and pure Inflammation, has been ſuppoſed chiefly to conſiſt in the ſeat of the diſeaſe. The ERYSIPELAS is commonly ſeated on the Skin, which is an irritable ſurface; a PHLEGMON is ſituated more deeply, in the ſubſtance of the part; and this

this difference of ſituation hath been eſteemed fully ſufficient to account for the very diſſimilar Phenomena that are exhibited by the two diſeaſes.

CCLXXXV. I muſt acknowledge that a patient ſtudy of nature hath induced me to ſuſpect, that the relation between Eryſipelas and Inflammation is extremely remote. It appears to me proper and juſtifiable to conſider Eryſipelas as a GENUS, the Specifick characters of which, are as widely differing from Inflamtion, as thoſe of Inflammation are diſſimilar from the Phenomena proper to Fever. This opinion will receive farther illuſtration, if we advert to the mode of Treatment that is appropriated to each; the very different manner in which the two diſeaſes terminate; and alſo to

this

this remarkable fact, that the two diſeaſes are not reciprocally convertible into each other. To propoſe trivial, or verbal innovations into Science, through an affectation of Novelty, or to attract the publick attention, is unworthy the Interpreter of Nature; but it is hoped, that the preſent inſtance will not incur ſuch a cenſure, from the candid and intelligent practitioner.

CCLXXXVI. As there is a conſiderable ſimilarity in the Phenomena that conſtitute ERYSIPELAS wherever it is ſeated, the general hiſtory of the diſeaſe will be leſs interrupted if a deſcription be firſt given of its appearance and progreſs in ſome one particular part; and afterwards we ſhall deliver ſuch obſervations, as will be applicable to the various

circum-

circumſtances that may accompany the diſeaſe. We propoſe therefore firſt of all, to ſpeak of Eryſipelas in the face, when connected with general affection of the Syſtem.

CCLXXXVII. This complaint is very frequently ſudden in its attack, but ſometimes it is preceded by ſhiverings, nauſea, and Symptoms that reſemble the approach of an intermittent. The forehead, cheeks, noſe or eye-lids are tumefied; the elevation is ſmooth and equal, but not diſtinctly circumſcribed. The ſkin is of a bright ſcarlet colour, or it is tinged with yellow, or it approaches to a duſky redneſs; on preſſing the part, this diſcolouration diſappears, but it returns again, as ſoon as the finger is removed. Theſe Symptoms are accompanied with an ardent heat, and an uneaſy ſenſe

of

of tingling in the part, rather than with acute pain; ſometimes the patient complains of a diſtreſſing pruritus. The tumefaction generally preſents a ſhining, and perhaps a ſemi-pellucid appearance, but is without tenſion, hardneſs, or a ſenſation of throbbing. The Eyelids are often ſo conſiderably tumefied as to obſtruct viſion, and the whole face is extremely diſfigured. Small puſtules, containing a tranſparent fluid, and very much reſembling thoſe that are produced by Boiling Water, occupy more or leſs of the ſurface affected with this diſeaſe; and if they burſt, the effuſed fluid will excoriate the neighbouring parts. There is frequently ſome degree of exulceration at the baſe of theſe Veſications, which very often haſten rapidly into

Gangrene or Sphacelus. When the diſeaſe terminates favourably, the Puſtules dry, and a furfuraceous deſquamation takes place in a period from about eight to twelve days.

CCLXXXVIII. The ſeat of the ERYSIPELAS is ſaid to be in the *Rete Mucoſum*; and without doubt this membrane is conſiderably affected; but it is not confined to this part, for the *tela Celluloſa* is always, and to a conſiderable degree, the ſubject of the diſeaſe; the ſituation of the complaint therefore, is not that which diſcriminates Eryſipelas from Phlegmon. And on the other hand, it is equally certain, that internal irritable ſurfaces, (as they are called) are as frequently attacked with Inflammation as Eryſipelas.

CCLXXXIX.

CCLXXXIX. But although the Cellular membrane is more or leſs intereſted in this complaint, the progreſs of the diſeaſe and its Mode of Termination, are widely different from the progreſs and general termination of a Phlegmon. A circumſcribed cavity containing laudable Pus is never ſeen in a legitimate Eryſipelas; and where a purulent effuſion happens in any conſiderable degree, when the part is examined, it affords a ſenſation ſimilar to that which is excited by a quagmire or moraſs. In that ſort of ſuppuration which ſometimes ſupervenes to Eryſipelas, the Cellular Membrane ſuffers great injury, and not uncommonly the part is in a Gangrenous condition.

CCXC. It is not an eaſy taſk, diſtinctly to aſcertain the REMOTE Cauſes that give origin to this diſ-

eaſe. From among many others we have ſelected the following:

1. Violent paſſions of the Mind, as Anger, &c.

2. Undue expoſure to the Rays of the Sun, or to the action of Fire.

3. A blaſt of cold moiſt Air.

4. The application of Poiſons, Vegetable, Mineral or Animal.

5. Wounds, Punctures, &c. of the Perioſteum, Pericranium, and of a tendinous expanſion, or a Nerve in Phlebotomy.

6. Fractured Bones.

It often appears, when we are unable determinately to aſſign any particular cauſe.

The ERYSIPELAS is ſometimes a congenital diſeaſe.

The efficacious action of the cauſes enumerated above in the production

tion of this Specifick form of diſeaſe, will be greatly influenced by the previous ſtate of the Syſtem.

CCXCI. The Eryſipelas ought to be carefully diſtinguiſhed from Phlegmon; and the following Criteria will aſſiſt towards forming a juſt DIAGNOSIS.

1. In the Eryſipelas, the tumefaction is leſs prominent, and is never evidently circumſcribed.

2. The ſkin often looks as if it were ſcorched or burnt.

3. The redneſs vaniſhes on preſſure.

4. It is not commonly attended with the lancinating pains, and ſenſe of throbbing, that attend the formation of a Phlegmon.

5. The part affected is almoſt wholly free from tenſion, and gives the ſenſation of an OEdematous,

or

or of an Emphyſematous ſtate, except that there is no crepitation.

6. That hardneſs of the Pulſe, which is a diſtinguiſhing character of Inflammation, is not preſent in Eryſipelas.

7. The general ſtate of the Syſtem verges rather to Debility, or depreſſion of ſtrength, than to increaſed ſtrength and vigour.

Some of theſe Criteria will occaſionally require qualification; but never to ſuch a degree as to invalidate the general concluſion.

CCXCII. From the foregoing narration of the Phenomena of Eryſipelas, it ſeems warrantable to form the following propoſition.

CCXCIII. In a part that is affected with an Eryſipelas, there

there is a morbid irritability of the Nerves; arterial contraction is performed with an increaſed velocity, but with diminiſhed vigour, and the parietes of the blood-veſſels give leſs reſiſtance than natural to the *vis a tergo*.

CCXCIV. The Eryſipelas is not a diſeaſe that is Simple and Uniform in its appearance, nor does it always admit of a ſimilar mode of treatment: it will be therefore proper to divide it into different Species, and to appropriate to each its method of Cure. The following diviſion is adopted as a convenient one:

1. The ACUTE Eryſipelas.
2. The OEDEMATOUS Eryſipelas.

3.

3. The MALIGNANT, or Gangrenous Eryſipelas.

Each of theſe Species may be an IDIOPATHICK, or a SYMPTOMATICK diſeaſe.

The Eryſipelas indeed is ſuſceptible of *Metaſtaſis*, but this property does not ſeem to be ſo ſufficiently limited, as to juſtify the admiſſion of it as a foundation for eſtabliſhing a fourth Species.

CCXCV. The ACUTE Eryſipelas is moſt commonly ſeen in thoſe of a Sanguine and Cholerick temperament; it is generally ſudden in its attack, and uſually affects the face. Symptoms reſembling thoſe of general inflammation, are often preſent immediately after the acceſſion of the diſeaſe; but they gradually diminiſh as the Eryſipelas becomes more diſtinctly formed: there is

a

a conſiderable heat, and great uneaſineſs in the part affected; the ſkin is of a brighter ſcarlet colour than in the other ſpecies; if puſtules appear they are diſtinct, but ſometimes there are no veſications on the ſurface.

CCXCVI. There is very ſeldom any matter formed in this ſpecies of Eryſipelas, and the violence of the diſeaſe commonly ſubſides in three or four days. The part then grows yellowiſh, and throws off furfuraceous ſcales: a tenderneſs of the hairy Scalp will often continue for a conſiderable time after the diſeaſe has diſappeared.

CCXCVII. In order to underſtand the reaſon of ſome of the Phenomena enumerated at N° 295, it will be proper to conſider Eryſipelas in a twofold view; as a morbid affec-

tion of the Syſtem, and as a Stimulus, capable of acting as the REMOTE Cauſe of another diſeaſe. When it is ſituated in the face, an inflammation of the Brain may be produced by its determining a preternatural flow of blood to the head; but ſuch an accident no more proves the Eryſipelas to be properly inflammatory in its own nature, than it proves that every effect is the copy and reſemblance of its cauſe. When contagious matters are admitted into the Syſtem, a temporary train of Symptoms reſembling general inflammation, commonly appear; but it is nevertheleſs thought proper to diſtinguiſh exanthematous diſeaſes, from ſimple inflammation.

CCXCVIII. The ACUTE Eryſipelas may be an IDIOPATHICK affection,

tion, and the ſame perſon will often have one or more regular attacks at certain periods of the year, but more eſpecially about the time of the Equinoxes. This diſeaſe is alſo a common Symptomatick attendant on Wounds of the Membranes that cover the bones, &c.

CCXCIX. The OEDEMATOUS Eryſipelas, is not in general ſo ſudden in its attack, nor ſo ſevere on its acceſſion; the diſeaſe increaſes gradually, is more diffuſed, and attended with leſs of ardent pain: if Symptoms reſembling general Inflammation appear, they never run high, nor are they of long duration; moſt commonly there is a depreſſion of Strength, and a ſoft, frequent, or perhaps irregular pulſe.

CCC. When the face is the ſeat of OEDEMATOUS Eryſipelas, the

whole viſage has a bloated appearance; the red colour of the ſkin is mingled with yellow or brown; it is accompanied with rigors, vomiting, and more or leſs diſturbance to the functions of the *Senſorium commune*. The veſications are often ſmall and numerous, and when they have been expoſed for a few days to the Air, the countenance will be covered with a dark coloured cruſt, very much reſembling the appearance of the confluent ſmall-pox. Although the face appears to be much inflated, yet it gives a very gentle reſiſtance to preſſure, and excites the peculiar ſenſation we deſcribed before.

CCCI. This Species of Eryſipelas is attended with conſiderable danger; the patient often dies delirious, or in a comatoſe ſtate, about the

the ſeventh day; the fatal termination is ſometimes protracted a few days longer.

CCCII. When this ſpecies of Erysipelas appears, it is common to ſee many people afflicted with it about the ſame period; and in Hoſpitals, I have ſeen ſeveral perſons in the ſame Ward ſucceſſively attacked with it: there is ſome reaſon to conclude that it is occaſionally an Epidemick diſeaſe, but I am unable to decide how far it is, or is not contagious.

CCCIII. The OEdematous Erysipelas may attack perſons of any age, or temperament; but thoſe are chiefly affected by this ſpecies whoſe conſtitutions are debilitated by age, or exceſs: we alſo frequently meet with it in Dropſical patients, in children, and in new-born infants.

CCCIV.

CCCIV. When this complaint is SYMTOMATICK, it is not nearly ſo dangerous as when it is Idiopathick; but whenever the face is conſiderably affected by this ſpecies of Eryſipelas, it is always to be regarded as a ſerious diſeaſe, whatever be the REMOTE cauſe. There is ſeldom much danger or inconvenience when it attacks an Extremity, except it be treated improperly. I have ſeen this Species of Eryſipelas make its firſt appearance upon the face, and by a gradual and regular progreſſion proceed downwards to the extremities, ſucceſſively appearing upon an inferior portion of the body, as it diſappeared from a ſuperior part; each renewed acceſſion of the complaint was leſs and leſs ſevere, as it receded to a greater

diſtance

diſtance from the part that was primarily affected.

CCCV. The Eryſipelas is a diſeaſe which is ſubject to ſudden and dangerous tranſlations from the external to the internal parts of the body. I have alſo ſeen it to affect each leg alternately, and be tranſferred ſuddenly from one to the other ſeveral times, during the continuance of the complaint. When a *Metaſtaſis* takes place from an extremity to the Brain, it will immediately be followed by a delirium, and other alarming Symptoms. I never ſaw an inſtance of *Metaſtaſis* in the acute Eryſipelas.

CCCVI. The firſt appearance of the MALIGNANT or *Gangrenous* Eryſipelas, is ſomewhat ſimilar to that of the OEDEMATOUS Eryſipelas, but it is much more rapid in its progreſs.

Phly-

Phlyctenæ with a livid baſe very quickly appear upon the ſurface of the ſkin, and Gangrenous Symptoms ſpeedily ſupervene. A ſtate of the Syſtem ſimilar to that which is preſent in Putrid Fever, makes an early appearance in this complaint.

CCCVII. This ſpecies of the diſeaſe is moſt frequently ſeen upon the face, neck, breaſt, or ſhoulders; the degree of danger attending it muſt generally be eſtimated by the ſtate of the Syſtem.

CCCVIII. The Gangrenous Eryſipelas is often a fatal diſeaſe, but it is irregular in the period of its termination. When it terminates favourably, we often meet with little caverns, and intercurrent ſinuſes in the *tela celluloſa*, containing an ill-conditioned Pus, and in thoſe caſes, conſiderable ſloughs formed by

by Cellular Membrane, &c. are evacuated from the Ulcer.

CCCIX. The Eryſipelas is ſometimes DEUTEROPATHICK, and not uncommonly it may be regarded as the Critical termination of another diſeaſe: *exempli gratia*, obſtructed Menſtruation, Quartan Ague, Spaſmodick and Convulſive diſeaſes. Indeed, Exanthemata in general, ſeem to have a remarkable efficacy in ſuſpending, or carrying off convulſive diſeaſes.

CCCX. After the favourable termination of Eryſipelas, eſpecially when the lower extremities have been affected, more or leſs of OEdema will often remain about the ankles for a conſiderable time, and be very difficult to remove.

CCCXI. The ZOSTER, ZONA HERPETICA, HERPES MILIARIS, or SHINGLES, is a diſeaſe that was well known to the Antients: it has been conſidered by ſome Moderns as a Species of Eryſipelas; but this arrangement would be extremely improper, for the two diſeaſes are very diverſe from each other.

CCCXII. That eruptive complaint to which we give the name of SHINGLES, appears in the form of ſmall veſications, which are filled with an almoſt tranſparent fluid; when they are large and diſtinct, there is very little redneſs in the interſtitial ſpaces between their baſe; but when confluent, there is a more conſiderable diſcolouration of the ſurface. The Eruption is uſually

but

but not invariably preceded by ſlight rigors, ſickneſs, and even vomiting; the puſtules are more commonly ſituated about the Breaſt, Back, Abdomen, or Loins, and ſometimes they form a portion of a circle; at other times, they are ſeen in diſtinct and diſtant cluſters upon different parts of the body. The feveriſh Symptoms do not wholly diſappear on the eruption of the Puſtules, but they gradually ſubſide as the contained fluid acquires a denſer conſiſtence; the ſurface of the Puſtules then begins to dry; they fall off in the form of dark-coloured cruſts; and the diſeaſe terminates in a period of, from eight to twelve days.

CCCXIII Although the SHINGLES owe their origin to an internal cauſe, and the eruption is generally con-

nected with a general affection of the Syſtem more or leſs ſevere, yet it is a diſeaſe very ſeldom dangerous in its conſequences. A vulgar notion indeed prevails, that if the eruption forms a Circle round the body the termination will be certainly fatal. I never ſaw it encompaſs the body, but it is more than probable that this Prognoſis is as well ſupported as the generality of vulgar opinions.

CCCXIV. This diſeaſe ought to be diſtinguiſhed from Eryſipelas :— from Ignis Sacer :---Varicella :--- Herpes :---and Eſſera. A Hiſtory of the Nettle Raſh is given in the ſecond Volume of the Medical Tranſactions, by the very learned and reſpectable Dr. HEBERDEN.

SECT.

SECT. II.

THE MODE of TREATMENT.

CCCXV. As the ſame method of treatment is not applicable to each Species of the Eryſipelas, it will be proper in the firſt place to ſpeak of the General Remedies that are to be employed, in the order of our diviſion, and afterwards we ſhall deliver the local treatment.

CCCXVI. Indication the firſt:

To diminiſh increaſed vaſcular action in the ACUTE Eryſipelas, and to take off particular determination to the head, by,

1. GENERAL and TOPICAL Blood-letting.

GENE-

General bleeding is not recommended in this place as a cure for Eryſipelas, in the ſame ſenſe in which it may be ſaid to remove an Inflammation; it is adviſed, with the intention of obviating the effects produced in the Syſtem by ſo ſevere a ſtimulus, as Acute Eryſipelas. A repetition of the operation, will very ſeldom be neceſſary or adviſable.

2. Gentle aperients of the Saline, and acid Claſs. The exhibition of emeticks and ſevere purgatives, have ſometimes been ſucceeded by very fatal conſequences.

CCCXVII. Indication the ſecond: To promote an equable determination of the blood to the ſurface of the body, and to ſupport a gentle Diaphoreſis, by

1. Nitre

1. Nitre and Antimony :---Sweet Spirit of Vitriol :---Decoction of Elm Bark :---Dovers Powder :---Wine Whey, &c.

CCCXVIII. Indication the third:

To allay irritation, and remove uneaſineſs, by Camphire and Opium.

The Perſon ought to abſtain from Animal food, and to avoid expoſure to a Cold Atmoſphere.

SECT. III.

The TREATMENT of OEDEMATOUS Eryſipelas.

CCCXIX. Indication the firſt:

To obviate the effects of topical determination, when neceſſary, by local blood-letting.

When

When this ſpecies of Eryſipelas is SYMPTOMATICK, e. g. the conſequence of a Wound of the head; the application of cupping-glaſſes between the ſhoulders ſo as to extract a few ounces of blood, will frequently be proper in an early ſtage of the diſeaſe; but it will be very ſeldom adviſable to repeat the evacuation. General Bleeding is inadmiſſible, almoſt without exception. The propriety of topical bleeding is chiefly applicable to thoſe caſes where there is danger of an affection of the Brain. But very great nicety is required in determining upon this evacuation, where there is the leaſt diſpoſition to a *Metaſtaſis*. I have ſeen the moſt dangerous Symptoms immediately ſupervene to the loſs of a very ſmall quantity of Blood.

2. To

2. To keep the body ſoluble by the remedies adviſed at N° 316. The ſame obſervation with reſpect to the uſe of Emeticks and Purgatives is applicable here.

CCCXX. Indication the Second: To promote a Diaphoreſis by the Medicines recommended N° 317.

CCCXXI. Indication the third: To excite irritation in a diſtant part, by Rubefacients, Veſications, &c.

Theſe remedies are chiefly applicable in the tranſpoſed Eryſipelas; or in caſes where the brain is affected: they ought to be employed with caution upon other occaſions.

CCCXXII. Indication the fourth: To relieve Pain and Irritation by HOFFMAN's Anodyne Liquor, Camphire, Opium, London Treacle.

Opium is a very valuable and neceſſary remedy in the OEdematous Eryſipelas, and when given with a prudent freedom, it often produces the happieſt effects.

CCCXXIII. Indication the fifth:

To ſupport the vigour of the Syſtem, and prevent a termination of the diſeaſe in Gangrene and Sphacelus, by Tonick remedies: As Peruvian Bark: Wine: Brandy: *Confectio Cardiaca:* Volatile Alkali, &c.

CCCXXIV. The plan of treatment to be adopted in the Malignant Eryſipelas, is the ſame with that which is recommended in the Chapter on Gangrene and Sphacelus.

SECT.

SECT. IV.

The LOCAL Applications to be uſed in ERYSIPELAS.

CCCXXV. The Medicaments that have been recommended as ſuitable applications to a part affected with Eryſipelas have been extremely various and diſſimilar; I will enumerate a few of the principal ones, and deliver ſome general remarks.

1. Repellent, and aſtringent applications, as cold Water, Vinegar, Lead, Vitriol, &c.

2 Unctuous Subſtances.

3. Rubefacients: Spirituous and Lixivial applications.

4. Farinaceous or Earthy Matters ſprinkled upon the ſurface.

5. Warm emollient Cataplaſms.

CCCXXVI. The indiſcriminate uſe of the remedies mentioned at N° 1. will certainly be often attended with great danger. There are caſes of Acute Eryſipelas in which they may ſometimes be uſed with ſafety, but I do not recommend them.

2. Mere Unctuous ſubſtances ought never to be uſed.

3. Rubefacients may be employed with ſafety, but as they excite great pain, and ſometimes exaſperate the diſeaſe, I cannot ſpeak in favour of their application.

4. The uſe of Farinaceous Subſtances, Earths, &c. counteracts one of our moſt principal Indications, which is, to promote a gentle perſpiration in the part: their application is alſo attended with the farther inconvenience of forming hard

irritating

irritating cruſts upon the diſeaſed part. I have ſeen very diſagreeable and dangerous conſequences to enſue from their uſe.

5. Mild, Warm Cataplaſms, are the applications which a very extenſive experience hath induced me to prefer. They may be compoſed of the Powders of Aniſeed, Fennel, Camomile flowers, &c. mixed with a fourth part, or an equal quantity of Bread, and a proper quantity of Milk: Lineſeed powder may ſometimes prove a convenient addition. And after the Eryſipelas is cured, the OEdema that remains may generally be removed by the uſe of hot Sea Water, and a flannel bandage.

CCCXXVII. The Eryſipelas that ariſes from the puncture of a Membrane, or tendinous expanſion, very often requires a free and extenſive divi-

diviſion of the parts, before any application can be attended with advantage.

CCCXXVIII. The external applications neceſſary in the Malignant Eryſipelas are enumerated in the Chapter on Gangrene and Sphacelus.

CCCXXIX. The Ulcers that are produced by this diſeaſe, do not require any peculiar mode of treatment.

SECT. V.

The TREATMENT of ZONA HERPETICA.

CCCXXX. The ZONA HERPETICA, very often admits of a natural Cure; but when it requires Medicinal treatment, the Indications are,

1. To

1. To promote an equable determination of blood to the ſurface of the body, by

a. Living in a warm Atmoſphere.

b. Gentle Diaphoreticks, and light Cordials. See N° 317.

Indication the Second :

To exhibit a gentle purgative when the Puſtules are drying.

Diuretick Medicines are alſo proper.

No particular external applications are neceſſary.

CHAP.

CHAP. XI.

SECT. I.

OF THE SCHIRRHUS and CANCER.

CCCXXXI. A SCHIRRHUS is a hard circumſcribed tumor, moſt commonly ſituated in a Glandular part; it is generally moveable, without redneſs, and poſſeſſed of a very low degree of Senſibility.

CCCXXXII. It is not certain, that any of the ſoft parts of the body are wholly exempted from this diſeaſe; but it chiefly occurs in the conglomerated Glands, and thoſe ſurfaces that are covered with a ſecreting membrane.

CCCXXXIII.

CCCXXXIII. The REMOTE cauſes of Schirrhus have been rendered very numerous by different writers upon the ſubject; we intend to take notice of thoſe that are more generally inſiſted upon.

1. The Inflammation of a Glandular part.

2. The Repulſion, or the coagulation of Milk in the breaſt.

3. Contuſion.

4. Preſſure.---Attrition.

5. Obſtructed, or ſuppreſſed Menſtruation.

6. Depreſſing paſſions of the Mind, as Fear, Grief, Melancholy, &c.

7. An Hereditary contamination.

CCCXXXIV. It has often been doubted, whether an Inflammation ought ever to be regarded as the REMOTE cauſe of a Schirrhus; and

indeed the propriety of admitting it cannot eaſily be demonſtrated. Antient and Modern writers of great authority, have aſſerted that an inflammation of the Liver frequently terminates in Schirrhus; and it has been ſuppoſed, that a ſimilar cauſe has often been productive of a Schirrhus in the Uterus. The nature of this work however does not admit of a full diſcuſſion of the propriety or impropriety with which the REMOTE cauſes are aſſigned: it will therefore be ſufficient to obſerve in the general, that an Inflammation ſeated in an external part, is probably never a proper cauſe of Schirrhus.

CCCXXXV. The ſhare which other REMOTE cauſes have in producing a Schirrhus, cannot always be clearly aſcertained; for it is certain

tain that this diſeaſe will often appear without the evident operation of any cauſe whatever.

CCCXXXVI. Schirrhous tumors of the breaſt very frequently occur in Women that lead a ſedentary life; in caſes of obſtructed Menſtruation; and about the period when the Catamenia ceaſe to appear. It hath alſo been obſerved, that the Uterus is frequently attacked with this diſeaſe, in thoſe women that have been accuſtomed to Menſtruate in a large quantity, when that evacuation ceaſes to flow.

CCCXXXVII. Schirrhous affections of one kind or other have been found in the Brain---OEſophagus---Neck---Breaſt--Stomach, Inteſtines--Rectum--Liver---Spleen, Pancreas--Kidney--Bladder--Uterus Urethra---Teſtes, &c. The Symp-

toms and effects of this disease when situated in these different parts of the body will vary considerably; and can only be well understood by studying the History of each particular complaint.

CCCXXXVIII. It may be offered as a general observation, that the presence of a Schirrhus in any part of the body, will be accompanied with all the ill-consequences that can result from a derangement of its particular organization; from an interruption to the due performance of its peculiar functions; and from an undue compression made upon the neighbouring parts.

CCCXXXIX. When a Schirrhous tumor is removed from the body and subjected to examination, it exhibits an almost uniform appearance, for all the constituent parts

seem

ſeem to be ſo intimately blended together into one maſs, that no diſtinct veſſels, cells, &c. can be traced: About the centre of the tumor, a few drops of a yellowiſh, or dark-coloured fluid is ſometimes to be found; on other occaſions, this fluid is met with nearer the circumference. By long boiling a quantity of a coagulable fluid is obtained, which appears to have been contained in cells that now become rather viſible; there are few, or no traces of blood-veſſels to be ſeen, nor is there any diſtinct reſemblance of the primitive ſtructure of the part. The ſubſtance that remains after boiling is hard and Elaſtick, and not very unlike a portion of fiſh, boiled till it becomes firm.

CCCXL.

CCCXL. Schirrhous tumors ought to be diſtinguiſhed from Inflammation and Suppuration of the Breaſt : from tumors occaſioned by Milk:--- Strumæ :---Hernia Humoralis :--- Encyſted tumors, &c.—It is often difficult to diſtinguiſh this diſeaſe, when it is ſituated internally : A Schirrhus of the Meſentery, and alſo of the Ovarium, have been miſtaken for an impoſthumation, and laid open.

CCCXLI. The Prognosis of Schirrhus. All Schirrhi have a tendency to terminate in Cancer. Some Tumors however, apparently of this claſs, have happily been diſcuſſed ; and more eſpecially ſuch as have been ſituated internally.

CCCXLII. The hardneſs that ſometimes remains after the termination of an inflammation, and the callo-

ſities

ſities that ſurround the edges of ill-conditioned Ulcers, Fiſtulæ, &c. differ materially from a true Schirrhous affection.

The PROGRESS of a Schirrhus in the Breaſt.

CCCXLIII. The tumor that has remained for ſome ſpace of time hard, inſenſible, and almoſt ſtationary, gradually increaſes in magnitude and ſenſibilty ; a gentle pruritus is firſt perceived, which gradually changes to an obtuſe throbbing ſenſation ; and the uneaſineſs continues to increaſe, until it riſes to an acute, lancinating pain. The diſeaſed part loſes its mobility, and becomes irregular in its figure ; the cutaneous veins enlarge, and often become varicoſe ; and in one or more parts the ſkin becomes of a flaveſcent, purple, or livid hue ; beneath

neath theſe diſcoloured ſpots an acrid and malignant fluid is contained, that will ſpeedily erode the integuments and produce Ulceration. The general health of the Syſtem is at this period, more or leſs affected. When the diſeaſe has arrived at this ſtate, it aſſumes the name of

CANCER.

SECT. II.

CCCXLIV. A CANCEROUS Ulcer is irregular in its figure, and commonly preſents an unequal ſurface; it diſcharges a ſordid, ſanious, and often fetid matter; the edges of the ſore are thick, indurated, and extremely painful: they often exhibit a ſerrated appearance, and are ſometimes retorted, at other times inverted

inverted. The Ulcer ſometimes ſpreads with great violence to a very conſiderable extent, and in the courſe of its progreſs produces frequent hæmorrhages, in conſequence of the eroſion of blood-veſſels.

CCCXLV. The manner and comparative rapidity with which Cancerous Ulcers proceed, admits of conſiderable variety; in ſome caſes, the Breaſt is deſtroyed, and Life is terminated in the ſpace of a few months. It ſometimes happens that a Sphacelus ſupervenes, and the whole diſeaſed part falls off, leaving a ſmooth and apparently healthy ſurface; but the ſore is always cancerous. And I have known a Cancer attended with hæmorrhage, to proceed ſlowly without exciting any pain or uneaſineſs, and gradually wear out the patient by the

Hectical Symptoms that it ſupported. There are alſo many caſes upon record, where Cancers have remained in a dormant ſtate for many years attended with little uneaſineſs, and productive of no derangement in the general health of the Syſtem.

CCCXLVI. It hath been thought advantageous in treating on this diſeaſe, to arrange CANCERS under different Species; but whatever be the reaſon, it does not appear that any diviſion which hath yet been propoſed, hath met with univerſal approbation.

CCCXLVII. As a Specimen of the diviſions that have been propoſed, I ſhall exhibit the following:

It hath been divided into,

1. The OCCULT Cancer.
2. The ULCERATED Cancer.

But

But whether by the former of theſe, we are to underſtand a cancerous affection of an internal part, or a Schirrhous tumor concealed by the integuments, is a point not yet fully agreed upon.*

If a part be ſuddenly attacked with the Symptoms of Cancer, it hath been denominated,

A PRIMITIVE Cancer.

When a Schirrhous tumor hath terminated in this diſeaſe, it hath been called

A SECONDARY Cancer.

They have alſo been divided into,

1. Cancers originating from an EXTERNAL Cauſe.

* See the Works of *Hildanus*, *Peccetti*, *Wiſeman*, *Van Swieten*, *Pouteau*, *Le Cat*, &c. and the *Prix Memoires*, *de l'Academie royale de Chirurgie*, &c. &c.

2. Cancers originating from an INTERNAL Cauſe.

When the diſeaſe appeared to be unconnected with any evident conſtitutional affection, it hath been called

A SIMPLE Cancer.

If the Perſon were previouſly affected with Lues Venerea, Scurvy, &c. It was called

A COMPLICATED Cancer.

The ſituation, the figure, or the REMOTE cauſe, have alſo been ſeverally adopted by various Syſtematick writers, to characterize what have been termed different Species of this diſeaſe.

CCCXLVIII. I ſhall not offer any obſervations upon the Merit, or Demerit of the ſeveral diviſions enumerated above: but if the term SCHIRRHUS be employed, until the diſeaſe

diſeaſe aſſumes the appearances deſcribed at N° 343, and if afterwards we apply the term CANCER, perhaps our Ideas will be ſufficiently determinate for every practical purpoſe.

CCCXLIX. The breaſt is ſometimes attacked ſo ſuddenly with Schirrhus, that an ACUTE pang in the part ſhall give the firſt notice of the preſence of a ſmall, hard, tumor. A retraction of the Nipple; an adheſion of the Gland to the ſubjacent parts; and a contraction of the ſkin into little folds, frequently precede, or accompany the appearance of this diſeaſe. Sometimes there will be an occaſional evacuation of a bloody Serum from the Nipple, for ſeveral months before any other complaint appears; but in theſe caſes the ſubſequent

diſeaſe

diſeaſe is uſually very rapid in its progreſs.

CCCL. A Cyſt containing a dark coloured liquor is very often met with in ſome part of the ſubſtance of a malignant Schirrhus. (N° 343.) This fluid hath been found to be ſo extremely acrid, that a very tranſient application of it to a part covered with cuticle, left perpetual darting pains for ſeveral hours after it was waſhed off. When applied to a ſurface devoid of cuticular covering, it has produced Ulcers that exhibited the common appearances of Cancerous ſores. An inſupportable and fatal nauſea has been the conſequence of imprudently taſting it; and even the fetid effluvia ariſing from a cancerous Ulcer, will ſometimes produce very diſagreeable effects upon the attendants.

CCCLI.

CCCLI. In certain caſes where Suppurating Plaſters, or Cataplaſms had been uſed, an impoſthume, containing a very large quantity of a bloody Serum, was found in that part of the breaſt which had been previouſly occupied by a Schirrhus tumor: and in all theſe inſtances the diſeaſe terminated fatally. *Monro.*

CCCLII. When a Cancer attacks the ſurface of the ſkin, it very frequently makes its firſt appearance in the form of a Wart, or ſmall excreſcence; very often it will give little diſturbance until it be irritated by improper treatment: And under theſe circumſtances, it will very quickly change its aſpect, and aſſume all the appearances of a cancerous Ulcer. Of this ſort are the ulcerations which have been termed, *Nomè*, *Noli me tangere*,

Lupus

Lupus, *Ulcus depaſcens*, &c. they moſt frequently appear upon ſome part of the face, upon the ſkin that covers the *Tibia*, or upon the parts of Generation.

CCCLIII. When the Lip, *Alæ Naſi*, or the Eye-lids are affected with a Cancer, the diſeaſe moſt commonly contaminates the whole ſubſtance of the part in which it is ſeated; and it is not unuſual to meet with diſeaſed Abſorbent Glands, and carious bone, in the vicinity of carcinomatous Ulcers.

CCCLIV. If a part of the body that is naturally covered by a ſecreting membrane, as the inſide of the Noſe, Mouth, Stomach, &c. becomes the ſubject of a Cancerous affection, the diſeaſe often appears in the form of Polypus excreſcences; or of fungi, poſſeſſing different characters

racters: And, indeed Fungi very commonly vegetate in Cancerous Ulcers, wherever they are ſituated. The fungus and Polypus ſubſtances that are occaſionally ſeen in the Uterus, Inteſtines, Bladder of Urine, &c. do not always exhibit an appearance ſufficiently uniform, to render their real nature capable of accurate diſcrimination.

CCCLV. A Cancer of the Uterus is generally preceded by Leucorrhœa, and ſometimes by repeated hæmorrhages from that organ. Wandering pains are felt in different parts of the Pelvis, and about the Hypogaſtrick, and Umbilical regions: The natural functions of the Stomach and Inteſtinal canal, are more or leſs deranged; and very commonly, a ſtate of the Syſtem

ſomewhat reſembling Hectick fever is preſent. The Patient will often complain of an unnatural ſenſe of heat about the Uterus, and at certain times, ſhe will have pains accompanied with involuntary expulſive efforts, as if the Uterus were deſcending thro' the Vagina. The diſeaſe may be ſeated either in the Cervix or in the Corpus Uteri. As the Uterus enlarges, it gradually loſes its natural mobility, and becomes hard, inelaſtick, and more rotund, eſpecially about the os uteri. As theſe morbid alterations proceed, the pungent ſenſe of heat and pain increaſe in proportion; and theſe are attended with a conſiderable diſcharge of a flaveſcent or cineritious coloured matter, offenſive to the ſmell, and very acrimonious. The

matter

matter is frequently mixed with blood, eſpecially when there is a fungus, or an ulceration of the Uterus. On examining the ſtate of the part affected, it excites ſuch ſenſations as might be expected from an Ulcer poſſeſſing the characters deſcribed at N° 344: in this dreadful diſeaſe, the Bladder and Rectum are ſometimes eroded, ſo that their contents are evacuated through the Vagina.

CCCLVI. The Cancer of the Scrotum, to which Chimney-ſweeppers are peculiarly liable, was firſt deſcribed by Mr. *Pott*, to whoſe valuable writings I would refer the reader, not only for an account of this complaint, but alſo for the ſake of many important obſervations on Cancerous diſeaſes, which are

interſperſed in different parts of his works.

CCCLVII. The Cancer ought to be diſtinguiſhed from

1. Venereal affections of the Organs of Generation.

2. From Venereal Ulcerations of the Lips, Alæ Naſi, Tongue, &c.

3. From Ulcerations of the tongue in conſequence of the uſe of Mercury;—from enlargement of the papillæ, and excreſcences of a doubtful nature about the root of that organ.

4. From Ulcerations about the Gums, inſide of the Cheeks, Fauces, &c. from various cauſes.

5. From a particular affection of the Uterus in conſequence of Lues Venerea:

6. And from Phagadenick Ulcers in any part of the body.

CCCLVIII. The PROGNOSIS of Cancer. The natural tendency of a Cancer, is to terminate in the certain deſtruction of thoſe Patients that are unhappily afflicted with it. The powers of the conſtitution can exert but a feeble and unavailing reſiſtance againſt its ravages; nor are we at preſent in poſſeſſion of any remedy external or internal, that merits the name of an Antidote, againſt the dreadful effects of this fatal diſeaſe.

SECT.

SECT. III.

OF THE LOCALITY of a CANCER; AND Whether the preſence of this diſeaſe in any particular part, implies a contamination of the GENERAL SYSTEM.

CCCLIX. By a LOCAL diſeaſe may be underſtood, a morbid alteration in a particular part of the body, the exiſtence of which is not neceſſarily connected with a ſimilar morbid alteration, nor a certain tendency to ſuch a ſtate, in the general conſtitution: *exempli gratia*, Simple Ulcer, Encyſted Tumor.

CCCLX.

CCCLX. By a GENERAL or Univerſal diſeaſe may be underſtood, that ſtate of the Syſtem in which a ſimilar morbid condition occupies the whole, or the greater part of the living body; or where there is a certain and invariable tendency to ſuch a ſtate: *exempli gratia*, Small-pox, Lues Venerea, &c.

CCCLXI. It is probable, that the Cancer cannot with ſtrict propriety be included within either of theſe diviſions; for as on the one ſide, we cannot prove that the cancerous Virus is ſuſceptible of an indefinite multiplication, and a conſequent power of contaminating every part of the Syſtem; ſo on the other ſide, there frequently appears ſo evident a diſpoſition to the production of Cancer in different parts of the body about the ſame period,

that

that we are ſcarcely warranted to hazard a contrary deciſion.

CCCLXII. But whatever difficulties may ariſe when our ſpeculations are highly refined, or our expreſſions become indeterminate; they may be partly eluded, by attending to the *practical* queſtion, which may be ſtated in the following manner:

In the treatment of a Cancer, are we to conſider the diſeaſe as ſtrictly confined to that part of the body which is the immediate object of our attention? And are we not taught by experience that the diſeaſe is of ſo inſidious a nature, as to preclude the poſſibility of always aſſigning its preciſe limits with certainty?

CCCLXIII. This queſtion does not admit of a ſimple and direct reſolution in the affirmative, nor in the

the negative; it demands an attention to ſeveral collateral circumſtances, before the anſwer can be applied to a practical purpoſe in the Prognoſis, &c. of the diſeaſe; as

1. The general ſtate of the Patient's health.

2. The REMOTE cauſe, and duration of the diſeaſe.

3. Its ſituation, magnitude, connexions, malignity, &c.

CCCLXIV. If we conſult the records of Medicine it will appear, that many Cancers have been extirpated, and after the expiration of ſeveral years there has been no appearance of the diſeaſe, neither in the vicinity of the Cicatrix, nor in any other part of the body. But it is equally true, that in a great number of caſes where the patient has lived many years after the ope-

ration, that the diſeaſe has re-appeared in ſome part of the body; it is therefore extremely difficult to determine the ſucceſs that will attend the extirpation of a Cancer; for even a knowledge of the REMOTE cauſe, will not afford us much aſſiſtance in our attempts to eſtimate the degrees of probability, for, or againſt a relapſe. There is undoubtedly more reaſon to expect a favourable event from the exciſion of an incipient Schirrhus, than of an Ulcerated Cancer; but even here the prognoſis will be ſubject to fallibility.

CCCLXV. As the extirpation of a Cancerous part does not confer an abſolute ſecurity upon the ſubject of the operation, the reaſon of this uncertainty hath been anxiouſly ſought after, but I fear with more diligence than ſucceſs. Some practitioners

titioners have conjectured, that a certain fluid capable of communicating a cancerous affection, was always floating in the blood-veſſels of thoſe that laboured under the diſeaſe, and that it was from time to time depoſited in parts of a Glandular ſtructure. The exiſtence of ſuch a leaven or ferment, hath been confidently denied by the ingenious Monſieur *Le Cat*, M. *Pouteau*, and others; and they have maintained, that the diſeaſe is propagated from a cancerous ſore, &c. to diſtant parts of the body, by an irritation *Sui generis*, which is excited by the cancerous Matter acting as a peculiar Stimulus.* As there

* Monſieur *Pouteau* is ſo extremely attached to explanations founded upon the ſtimulating powers of contagious matter, to

is little probability in the former of theſe opinions, and the latter is ſcarcely intelligible, we ſhall not take any farther notice of them at preſent. *Vide Gaubius. Inſtit: Pathol: Medicinalis. De Potentiis, quae virus habent*, § 500.

CCCLXVI. From the facts that were mentioned at N° 350, it appears probable, that the cancerous virus poſſeſſes a power when applied under circumſtances favourable to its action, of producing a diſeaſe in a ſound part, ſimilar to its own ſpecifick

to excite a peculiar irritation, ſimilar to that which gave origin to the poiſon, that he applies the ſame mode of reaſoning to Small-pox, Lues Venerea, &c. and ſtrenuouſly contends, that the progreſs of theſe diſeaſes is only from Local to General irritation.

Voyez, Les OEvres Poſthumes.

ſpecifick nature. But every ſore produced by this poiſon, will not be neceſſarily cancerous; as its primary action may be analogous to that of any other corroſive fluid.

CCCLXVII. In cancerous affections of the Breaſt, the Abſorbent Glands in the Axilla, are very frequently contaminated with the diſeaſe; and Profeſſor *Camper* has diſcovered ſome Abſorbent veſſels, paſſing from the Breaſt into Glands ſituated under the Sternum, which exhibited the ſame diſeaſed appearances with thoſe ſeated in the Axilla. Now, as the Abſorbent Glands that lay on each ſide of the under part of the Sternum, communicate with each other by means of abſorbent veſſels, it will be eaſy to underſtand in what manner the diſeaſe may be propagated from one

breaſt

breaſt to the other. As a Cancer may therefore be reproduced in a part apparently cured; or propagated to a diſtant part, by means of diſeaſed abſorbent veſſels; and as theſe are exceedingly numerous, and often extenſively affected, we may be aſſiſted by conſiderations formed upon the preceding narration, to form an opinion, in what ſenſe a Cancer may be regarded as a LOCAL, or CONSTITUTIONAL diſeaſe.

SECT. IV.

DESIDERATA.

CCCLXVIII. To know diſtinctly the characters of that Schirrhous tumor, which will remain in a mild quieſ-

quieſcent ſtate, unleſs it be exaſperated by improper treatment.*

CCCLXIX. To be able to aſcertain the preciſe period when a Schirrhus aſſumes a malignant and cancerous nature.

CCCLXX. To be able to decide upon the caſes in which the extirpation of the morbid part will be attended with ſucceſs: and alſo to know whether in other caſes there be any Criteria, and what they are, by which we may be certain that the operation performed at any period of the diſeaſe will be improper and hurtful.

SECT.

* PECCETTI and WISEMAN have ſaid, that if hair grows upon the ſkin covering a Schirrhous tumor, the diſeaſe will not terminate in Cancer.

SECT. V.

OF THE TREATMENT of SCHIRRHUS and CANCER.

CCCLXXI. It hath already been delivered as a decided opinion, that there is no remedy yet made publick, which juſtly merits the name of an Antidote againſt the dreadful effects of the cancerous virus. If this opinion be true, it is of great importance to caution our Patients againſt placing their confidence in impotent or noxious Medicines, at a time when the diſeaſed part is ſo ſituated, that it can be ſafely and perhaps completely removed. The deluſions of hope may be ſweet under ſuch afflictive circumſtances; but

but if they lead to experiment, or delay, they add malignity to the poiſon, and give ſwiftneſs and certainty to the fatal termination of the diſeaſe.

CCCLXXII. When a Schirrhus, or Cancer, is ſituated internally, medical aſſiſtance alone can be employed. Sometimes it ſeems to be employed with advantage, by diminiſhing the diſeaſe, or retarding its progreſs; but at all times remedies may be exhibited, that will alleviate the tortures of pain, and thus render the approaches of Death leſs inſupportable. But we would proteſt againſt the man, who by truſting to, or trifling with any remedies, in an external Schirrhus, makes his patient loſe an opportunity that can never be recalled.

CCCLXXIII. Indication the Firſt: To preſerve a BENIGN Schirrhus from aſſuming a MALIGNANT form, by

1. Low and Vegetable Diet.

2. Saline Purgatives, at due intervals.

3. Avoiding all violent emotions of the mind.

4. Supporting, or defending the Part from injury and irritation, by means properly adapted to the ſituation of the diſeaſe.

Some reſpectable practitioners have recommended a courſe of Emeticks: The proper uſe of Electricity, &c.

As nothing is more to be apprehended than an increaſe of ſenſibility and action in a Schirrhous tumor, all Medicated applications to the part ought to be avoided.

CCCLXXXIV.

CCCLXXIV. The term Schirrhus, is frequently applied to certain diſeaſes of the Liver, Meſentery, Ovaria, &c. and in theſe caſes, it is not always to be taken in the ſtrict ſenſe to which it is confined in the preſent Chapter. It is alſo proper to be obſerved, that the uſe of internal remedies is often followed by the happieſt effects. The remedies that I have adminiſtered with the greateſt advantage, in theſe morbid affections, have conſiſted of Mercury, in a ſimple, or a combined ſtate, joined with Digitalis, Nicotiana, Cicuta, &c.—Vegetable and foſſile Alkali :--Moderate friction :--Gentle, and frequent geſtation :--- When there is much pain, a Plaſter compoſed of the Warm Gums with a large quantity of Opium, applied

to the Abdomen, will frequently give a temporary relief.

CCCLXXV. When the OEſophagus, Inteſtinum Rectum, or parts of a ſimilar ſtructure become Schirrhous, Mechanical means ſeem to be beſt adapted to the relief of the diſeaſe; but the expediency and advantage of employing them in every caſe, is not yet ſufficiently aſcertained. It ſcarcely need to be obſerved, that if the diameter of a canal be diminiſhed, in conſequence of compreſſion from an enlarged neighbouring Gland, Mechanical means will in general do more harm than good. It is not improbable, but that in ſome caſes of obſtructed deglutition, where the introduction of Mercury into the ſyſtem, removed the diſeaſe; the complaint has origi-

originated from the compreſſion of a Gland, &c.

CCCLXXVI. When we enter upon the mode of treating CANCER, there are three Indications which naturally preſent themſelves:

1. To remove if poſſible the external diſeaſe.

2. To prevent a relapſe or reproduction of the complaint.

3. If it be not thought adviſable to attempt a removal of the diſeaſe by an operation, to palliate the Symptoms, and endeavour to retard their progreſs. We ſhall treat each of theſe heads in its order.

CCCLXXVII. As we are not poſſeſſed of any Medicines that will certainly cure a legitimate Cancer, the only reſource of Art will conſequently be to remove the diſeaſed part by a Chirurgical operation.

There

There are two ways in which this end may be obtained,

1. By the application of a Cauſtick.

2. By the uſe of a Cutting Inſtrument.

CCCLXXVIII. If a Cauſtick be preferred for the removal of a Cancer, it ought to poſſeſs the power of ſuddenly deſtroying the whole diſeaſed part; otherwiſe the malady will be exaſperated, and perhaps the uſe of other means will be rendered leſs effectual. The difficulty of removing a breaſt by ſuch an application muſt be obvious; and where this is accompliſhed, the method does not appear to poſſeſs any peculiar efficacy. When the whole breaſt Sphacelates and falls off from the body, although the granulating ſurface for a time will look

look firm and healthy, yet the diſeaſe has never failed to renew its ravages. If it were neceſſary to reaſon againſt this mode of practice, we ſhould urge the ſevere pain that is produced; the neceſſity there is of frequently repeating the application; the uncertainty of its removing the whole diſeaſe, &c.

CCCLXXIX. In a Cancer of the Lip, or when the diſeaſe occupies but a ſmall extent of depth and ſurface in any convenient part, the application of a Cauſtick is not liable to the ſame objections: But it ought always to be ſo applied, as to produce the ſudden and complete deſtruction of the morbid part.*

CCCLXXX.

* It may be worthy of obſervation, that the *quality* of the Cauſtick we employ, is by no means an indifferent circumſtance: The

CCCLXXX. The Ulcers that are often termed Cancerous, but which are more properly claſſed under the head of Phagadenick, Depaſcent, &c. N° 352. may frequently be cured, by the application of Arſenick:---Corroſive Sublimate, &c.---And Cancerous Fungi have been ſucceſsfully deſtroyed by the Actual Cautery.

CCCLXXXI. The exciſion of a Cancerous part with the knife, hath ſo many advantages over the uſe of a Cauſtick, that this mode is generally preferred by the beſt Surgeons. The general rules to be obſerved in the extirpation of this diſeaſe are theſe, viz.

1. To

The Acid and Arſenical Cauſticks; and on particular occaſions, even the actual Cautery, will be found moſt proper in Cancerous diſeaſes.

1. To remove the whole affected part, with every Gland, or fibre in its vicinity, that exhibits the leaſt mark of diſeaſe: *exempli gratia*, When the breaſt is extirpated, the Glands in the Axilla are to be examined: If the Penis be amputated, the ſtate of the inguinal Glands, or thoſe ſituated on the Pubes, muſt be aſcertained, &c.

2. To ſave as much of the ſound ſkin as poſſible, that the ſurface of the ſore may be rendered ſmall, and its healing be expedited.

CCCLXXXII. In the extirpation of a Schirrhus, where the ſkin is not diſeaſed, the operation may frequently be performed by means of a ſimple inciſion long enough to permit the tumor to be diſſected out: As ſoon as this is effected, if the lips of the wound are kept in

contact by the means of ſutures, or adheſive plaſter, the patient will be perfectly well in a few days. As the ſuppuration of the wound does not at all contribute to the ſecurity of the patient, it is proper to heal the wound by the firſt intention, wherever this is poſſible. See *Garengeot, Traité des operations de Chirurgie. Ed. Seconde. Tome Second.* Chap. vii. p. 390, *& Suiv.*

CCCLXXXIII. If the ſituation and circumſtances of the diſeaſe be ſuch, that it cannot be completely extirpated, it will be by no means adviſable to propoſe an operation. Or if from the preſence of a cough, attended with difficult reſpiration, an expectoration of matter, and Hectick fever, there be reaſon to apprehend that the Lungs are in a diſeaſed ſtate, no particular advantage

tage is to be expected from the exciſion of the breaſt. But no kind of attachment of the breaſt to the ſubjacent parts, can ever conſtitute a valid objection againſt its extirpation, provided that the ſurface of attachment can be wholly removed.

CCCLXXXIV. When the Lip is the ſubject of a Cancerous affection, the mucous membrane is generally affected to ſome little diſtance beyond the circumference of the hardneſs, with a tinge of deeper red than natural; *Monſieur Le Dran* has always obſerved, that this is a ſure indication of the preſence of diſeaſe; and therefore adviſes that the inciſion be made in the ſound part, beyond this diſcoloured ſurface, leſt the operation ſhall prove unſucceſsful. After the extirpation

of the cancerous part, the ſides of the wound are to be brought into contact, and the ſame mode of treatment is to be followed as after the operation for the Hare-lip.

CCCLXXXV. Indication the Second:

The means that are to be employed in order to prevent a return of the diſeaſe, are of very doubtful efficacy: but as ſeveral eminent Surgeons have thought it proper to attempt ſomething of this kind, it is neceſſary to hint, that among other means they have recommended,

1. The inſertion of Iſſues, at a convenient diſtance from the Cicatrix.

2. An Abſtemious Courſe of Diet.

3. Proper Evacuations, at due intervals.

CCCLXXXVI.

CCCLXXXVI. Indication the third :

The uſe of Internal, or External Remedies as PALLIATIVES, in this dreadful diſeaſe. Among theſe, we ſhall firſt enumerate ſome which have been ſuppoſed to poſſeſs powers capable of correcting the Cancerous virus, as Mercury ; Cicuta ; Belladona ; Arſenick ; a Solution of Iron in a Mineral Acid ; a courſe of diet conſiſting of Water only : Monſieur *Pouteau*.---Pain is to be moderated by the uſe of Opium.

CCCLXXXVII. The exhibition of Mercury will ſometimes exaſperate the diſeaſe, but it is certainly no Antidote. I have adminiſtered Arſenick in conſiderable doſes, for a very ſufficient length of time to aſcertain its powers ; and although no diſagreeable effects attended its uſe,

uſe, I never ſaw it exhibited with the leaſt advantage.

CCCLXXXVIII. Among the external applications that have been recommended, we ſhall mention,

1. Preparations of Lead.

2. Arſenick.

3. Solutions of Iron.---Solutions of Mercury.

4. Carrot Poultice.---The fermenting Cataplaſm.

5. Peruvian Balſam.

6. Oily Mucilages, or Pure Oil.

7. The Electrick Aura.

CHAP.

CHAP. XII.

SECT. I.

OF THE

OZAENA.

CCCLXXXIX. THE OZAENA is an Ulcer that is ſituated within the Cavity of the Noſe, diſcharging a fetid purulent matter, and is ſome times accompanied with carious bone.

CCCXC. The term OZAENA, is uſed by ſome writers to expreſs a carious Ulcer within the Noſe: it hath been defined by others, "as a ſordid carious Ulcer within the Maxillary Sinus:" but as the word

was

was uſed by the Greeks, before the nature of the Abſceſs within the Antrum Highmori was underſtood, we ſhall confine the name nearly to its original ſignification.

CCCXCI. At the firſt appearance of this diſeaſe, it is ſometimes attended with many of the common Symptoms of a Catarrh ; there will be a trifling tumefaction and redneſs about the Ala Naſi, accompanied with a diſcharge of Mucus, partly in a fluid and partly in an inſpiſſated ſtate ; the air is tranſmitted through the affected noſtril with difficulty, eſpecially during ſleep, and the orifice is often quite obſtructed in the morning by a viſcid Mucus.

CCCXCII. As the diſeaſe advances, the matter that is evacuated aſſumes more of a purulent appear-

ance ;

ance; it flows in the greateſt quantity in a morning; the diſcharge is ſometimes accompanied with ſneezing, and a ſlight hæmorrhage occaſionally takes place. The Ulceration often proceeds until it appears externally, and then gradually ſpreads like an Herpetick Ulcer round the Angle of the Ala Naſi upon the Cheek; but it very rarely deſtroys the Ala Naſi, or extends to any conſiderable diſtance from the Noſe.

CCCXCIII. This diſeaſe is very often connected with Scrofula, and with Venereal complaints; and in the latter caſe, one or more of the Oſſa Spongioſa generally comes away in a carious ſtate. Many Venereal Patients whoſe complaints have been treated very properly,

will nevertheleſs ſometimes complain of a diſcharge of fetid matter from the noſtrils, and troubleſome incruſtations within their cavity, for a conſiderable length of time after the perfect cure of their diſeaſe.

Theſe Symptoms generally indicate the preſence of carious bone; and when that is exfoliated, the complaints will diſappear. In a few caſes where the quantity of carious bone was very conſiderable, I have ſeen the whole Ala Naſi totally deſtroyed.

CCCXCIV. When purulent matter is formed within the Frontal, Sphœnoidal, or Maxillary Sinus, the Symptoms will frequently bear a near reſemblance to thoſe which occur in the Ozaena: and indeed, the preciſe ſeat of the diſeaſe cannot always

always be distinctly ascertained at an early period of the complaint. It is however necessary to be very careful that we do not mistake an Abscess within the Antrum Highmori, for an Ozaena.

CCCXCV. As Ulcers in those parts that are employed in the function of respiration, frequently contaminate the breath with an offensive odour; when we attempt to ascertain the Cause of this inconvenience, it will be proper to examine the state of the Nasal Cavity, as well as the condition of the Mouth and Fauces.

SECT. II.

Of the TREATMENT of the OZAENA.

CCCXCVI. Before we undertake the Cure of an OZAENA, it will be abſolutely neceſſary to enquire into the REMOTE cauſe of the diſeaſe; for if its preſence depends upon the action of a Poiſon in the conſtitution, no plan of Chirurgical treatment can be of any utility, until the virus be corrected.

CCCXCVII. The Remedies to be employed internally, are

1. Preparations of Mercury :--- Preparations of Antimony.

2. Sarſaparilla :---Elm Bark :--- Peruvian Bark.

CCCXCVIII.

CCCXCVIII. The applications that will commonly ſucceed when uſed externally, are

1. Preparations of Copper :--- Zinc :---Arſenick :---Mercury :--- Pulvis Sternutatorius :---Mercurial fumigations :---Diluted Spirits of Vitriol, &c.

The Older Surgeons adviſe the uſe of the Actual Cautery; but I never ſaw its application neceſſary.

CHAP.

CHAP. XIII.

SECT. I.

OF THE CANKER of the MOUTH.

SYNONIMA.

Aphthae Serpentes. Sennertus.
Labrosulcium, seu Cheilocace. Arnoldus Bootius.
Oris Cancrum. Muys. Stalpart van der Wiel.
Gangraena Oris. Van Swieten.
Gangrene Scorbutique des Gencives, Auctores Gallici.

CCCXCIX. THE CANKER of the Mouth is a deep, foul, irregular, fetid Ulcer, with jagged edges, which appears upon

upon the inſide of the Lips and Cheeks; and is attended with a copious flow of offenſive Saliva.

CCCC. This diſeaſe is ſeldom ſeen in Adults, but it moſt commonly attacks Children from the age of eighteen months, to that of ſix or ſeven years. When the Ulceration begins at the inner part of the lip, it exhibits a deep narrow ſulcated appearance, and quickly ſpreads along the inſide of the cheek, which becomes hard, and tumefied externally. The Gums are very frequently intereſted in this complaint, and in ſuch caſes, the Teeth are generally found in a looſe and diſeaſed ſtate; Matter is often found in their ſockets, and Abſceſſes ſometimes burſt externally thro' the Cheek, the Lip, or a little below

low the Maxilla inferior: And it is not uncommon to ſee an exfoliation of the Alveolar proceſſes, or even of the greater part of the lower jaw. Among the Children of poor people, where this diſeaſe is neglected or miſmanaged at the beginning, a dreadful Gangrene will ſometimes ſupervene.

CCCCI. The REMOTE cauſes that give origin to this diſeaſe are not very obvious. I think it occurs moſt frequently among children that live in a marſhy ſituation; that are ſuſtained by unwholeſome food; and where a due attention to cleanlineſs has been wanting. The Cancrum Oris has been deſcribed by ſome writers, as a complaint very common in England and Ireland, where it is ſometimes Epidemical among Infants

ſants. It however is commonly ſeen in other kingdoms, and prevails more eſpecially in thoſe houſes where a great number of children are crouded together. I am not able to determine whether it is or is not contagious.

CCCCII. But Adults are not wholly exempted from this morbid affection, and it is not eaſy in all caſes to diſtinguiſh the Cancrum Oris, from a Cancerous, or Venereal Ulcer in the Mouth, ſince the Uvula, Tonſils, and Fauces, may be the ſeat of each diſeaſe. I have ſeen Ulcerations on the Uvula and Tonſils, with all the marks of a Venereal ſore, in Patients where the preſence of ſuch a virus could not be ſuſpected; and by treating them as Canker of the Mouth, they have been ſpeedily cured.

CCCCIII. The Canker of the Mouth ought to be diſtinguiſhed from Aphthæ :---The Epulis and Parulis :----Scurvy :-----Cancerous Ulcers :---Venereal Ulcers :---And Exulceration from the uſe of Mercury.

SECT. II.

THE MODE of TREATMENT.

CCCCIV. It will be proper,

1. To remove the diſeaſed teeth, bone, &c. if poſſible.

2. To preſcribe a Milk and vegetable diet, and to allow a prudent uſe of fermented liquors.

3. It will be adviſable to exhibit ſuch remedies, as,

Peruvian

Peruvian Bark :---Sarſaparilla :---Elm Bark :---Mineral Acids.

CCCCIV. The external applications that I have generally found ſucceſsful have conſiſted of ſuch as the following :

Preparations of Copper :---A diluted Mineral Acid :---Burnt Allum :---Decoction of Bark with white Vitriol :—Tincture of Myrrh, &c.

The End of the Firſt Part.

ERRATA.

Page

14. *For* Remote Cauſe, *read* Remote Cauſes.
22. *Line* 5. *for* Exal, *r.* Exalt
26. *L.* 10. *for* Termination, *r.* Terminations.
100. *L.* 9. *for* Bulo, *r.* Bubo.
110. § 191. *for* deſtroy, *r.* deſtroys.
128. *For* Sect. II. *r.* Sect. III.
129. *For* Sect. III. *r.* Sect. IV.
131. *For* Sect. IV. *r.* Sect. V.
132. *For* Sect. V. *r.* Sect. VI.
156. *For* Sect. IV. *r.* Sect. II.